

Levin-Richmond Terminal Corporation

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August 30, 2016

Ms. Karen Jurist
United States Environmental Protection Agency Region 9
75 Hawthorne Street
San Francisco, California 94105
Via email: jurist.karen@epa.gov

RE:

2015-2016 Annual Report, United Heckathorn Superfund Site, Upland Capping System

Richmond, California

Dear Ms. Jurist:

Enclosed please find the 2015-2016 Annual Report for the Upland Capping System at the United Heckathorn Superfund Site.

Please feel free to contact me if you have any questions or concerns with the attached report.

Sincerely,

Gary Levin

Chief Executive Officer

Levin Richmond Terminal Corporation

Yary Teun

(510) 307-4091

Enclosure: 2015-2016 Annual Report for United Heckathorn Superfund Site Upland Capping System



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2015-2016 Annual Report

United Heckathorn Superfund Site Upland Capping System Richmond, California

August 30, 2016 Rev. 0

prepared for:

Levin Richmond Terminal Corporation 402 Wright Avenue Richmond, California 94804

prepared by:

CDIM Engineering, Inc. 45 Polk Street, 3rd Floor San Francisco, CA 94102



CDIM's work for the Levin Richmond Terminal Corporation was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate, are based on what can be reasonably understood as a result of this project, and satisfy the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, or professional opinions were prepared solely for the use of the Levin Richmond Terminal Corporation in accordance with generally accepted processional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of the contents herein.



Scott Bourne, PE #C72817

Principal Engineer

August 30, 2016

Date



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ACRONYMS AND ABBREVIATIONS

BMP best management practices

Calscience Eurofins CalScience Environmental Laboratories

CDIM Engineering, Inc.

DDD dichlorodiphenyldichloroethane
DDE dichlorodiphenyldichloroethene
DDT dichlorodiphenyltrichloroethane

gpm gallons per minute

Heckathorn site or Site United Heckathorn Superfund Site

IGP Storm Water Industrial General Permit

LRT Levin Richmond Terminal

LRTC Levin Richmond Terminal Corporation

MDL method detection limit

MLLW mean lower low water

MRL method reporting limit

msl mean sea level

NAL numeric action level

NPDES National Pollutant Discharge Elimination System

O&G oil and grease

O&M operations and maintenance

O&M Plan Revised Draft Operations and Maintenance Plan, Upland Capping System,

Former United Heckathorn Site

ROD Record of Decision

SWPPP Storm Water Pollution Prevention Plan
SWRCB State Water Resource Control Board

Third Five-Year Review Third Five-Year Review Report for United Heckathorn Superfund Site,

Richmond, California

TS2 advanced storm water treatment system TS2

TSS total suspended solids µg/L micrograms per liter

USEPA United States Environmental Protection Agency

Weiss Associates



1 INTRODUCTION

On behalf of the Levin Richmond Terminal Corporation (LRTC), CDIM Engineering, Inc. (CDIM) prepared this 2015-2016 Annual Report to describe inspection, monitoring, and maintenance performed on the upland cap at the United Heckathorn Superfund Site (the Heckathorn Site).

1.1 Background

From 1947 through 1966, the Heckathorn Site was used for formulation, processing, packaging, and shipping of pesticides including aldrin, dieldrin, dichlorodiphenyltrichloroethane (DDT), and endrin. These activities resulted in the release of pesticides, predominantly DDT, to the surrounding soils and to the Lauritzen Channel. In 1994, after remedial investigation and feasibility studies were completed, the United States Environmental Protection Agency (USEPA) adopted a Record of Decision (ROD) for remedial action requiring:

- Dredging of all soft bay mud from the Lauritzen Channel and Parr Canal, with offsite disposal of dredged material;
- Placement of clean material after dredging;
- Construction of a cap around the former Heckathorn facility to prevent erosion;
- A deed restriction limiting use of the property at the former Heckathorn facility location to non-residential uses; and,
- Marine monitoring to verify the effectiveness of the remedy (USEPA, 1994b).

In 1996, LRTC entered into a Consent Decree¹ with the USEPA, which outlined LRTC's responsibility to design, construct, and maintain a concrete cap around the former Heckathorn facility to prevent erosion (United States District Court, 1996a). LRTC completed construction of the concrete cap in July 1999 (PES, 1999b.)

Since the cap was constructed, USEPA has completed three five-year reviews and has found the upland remedial action is protective of human health and the environment, due to capping of contaminated soils which has eliminated human exposure pathways and prevented erosion (USEPA, 2011).

1.2 Program Objectives

In order to ensure long-term protection of human health and the environment, the remedial action goal established by the USEPA for upland and embankment soils is the prevention of erosion and transport into the Lauritzen Channel (USEPA, 1994a).

The upland cap was designed to protect against erosion of contaminated soils and subsequent flow into the channel associated with surface water runoff (USEPA, 2011).

¹ Montrose Chemical Corporation of California, Chris-Craft Industrial, Rhone-Poulenc, Inc. and Stauffer Management Company (collectively the "Montrose Group") entered into a separate Consent Decree with USEPA for dredging of young bay mud from the Lauritzen Channel and Parr Canal, with offsite disposal of dredged material and placement of clean fill after dredging (United States District Court, 1996b).



The objective of the cap inspection and storm water monitoring programs is to identify any potential release of pesticide-impacted soil by examining the integrity of the cap system through inspection and storm water monitoring (USEPA, 2011).

1.3 Operation and Maintenance Program

LRTC performs operations and maintenance (O&M) activities in accordance with the *Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site* (O&M Plan; PES, 1999a). LRTC performs additional O&M activities recommended by USEPA in the *Third Five-Year Review Report for United Heckathorn Superfund Site, Richmond, California* (Third Five-Year Review; USEPA, 2011) to provide added confidence that the upland area remedy maintains its effectiveness.

1.4 Contents of this Report

This Annual Report describes activities performed by LRTC to inspect, monitoring and maintain the upland cap for the period of July 1, 2015 to June 30, 2016. Included is a summary of each of the following:

- Capping system maintenance activities;
- Shotcrete placement and pipe abandonment;
- Storm water collection system inspection and cleaning;
- Storm water system monitoring;
- Storm water treatment;
- Annual cap inspection;
- Proposed site work for 2016-2017; and,
- A conclusion with CDIM's opinion as to the overall condition and effectiveness of the cap in meeting the program objectives.



2 SITE DESCRIPTION

The Levin Richmond Terminal (LRT) is located at 402 Wright Avenue in Richmond, California and is immediately adjacent to the Lauritzen Channel in the Richmond Harbor (Figure 1). The Heckathorn Site includes the northern five acres of the Main Terminal at LRT, known as the upland cap area (Figure 2).

2.1 Upland Area Description and Current Use

The upland cap area is bounded by a railroad track and Cutting Boulevard to the north; South Fourth Street to the east; the LRT and Santa Fe Channel to the south; and, the Lauritzen Channel to the west. The majority of the upland cap area is relatively flat with surface elevations of approximately 9 feet above mean sea level (msl), with the exception of the portion of the upland cap area north of the Lauritzen Channel, which was raised to approximately 15 feet above msl during cap construction.

The upland cap area is used primarily for storage of dry bulk product and railroad operations. Photographs taken during the site inspection are included in Appendix A.

2.2 Nearby Water Bodies

The storm water system in the upland cap area discharges directly to the Lauritzen Channel (Figure 2). The Lauritzen Channel is connected to the San Francisco Bay via the Santa Fe Channel and Richmond Inner Harbor.

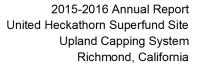
2.3 Upland Area Cap

Construction of the concrete cap at the upland cap area began in July 1998 and was completed in July 1999 (PES, 1999b). Installation of the cap consisted of: (1) site grading to promote surface runoff to collection points; (2) installation of a drainage system to collect surface runoff, including BMPs for storm water pollution prevention; and (3) construction of a reinforced concrete cap in the majority of the 5-acre area and construction of a geotextile fabric and gravel cap in the railroad track area (Figure 2). The concrete cap consists of a minimum 6-inch thick concrete with a double layer of welded wire fabric reinforcement. The gavel cover consists of a geotextile fabric over a prepared subgrade. The geotextile fabric is covered by a 6-inch layer of gravel.

2.4 Storm Water Collection and Advanced Treatment

The facility is paved with asphalt and concrete and is graded to direct surface water runoff via sheet flow or shallow swales to drop inlets (Figure 3). The drop inlets drain to five below-grade interceptors² (SW-3 through SW-7) via underground pipe. The interceptors are equipped with compartments and steel baffles to allow the settling of sediments and separation of oil/grease and floatables and normally-closed gate valves, which can be opened during heavy rains to enable discharge to the Lauritzen Channel.

² The interceptors design was based on a five-minute retention time during a 10-year, 24-hour storm event (PES, 1999).





In 2015, LRTC completed modifications³ to the upland cap area storm water collection system and installation of advanced storm water treatment system TS2 (TS2). Single-speed submersible pumps placed into final chamber of each interceptor were connected to newly installed storm drain pipe along the edge of the LRTC pier. During storm events, the submersibles pump storm water captured by interceptors SW-3 to SW-7 through an inline static mixer where a biopolymer flocculant is added. Storm water then settles in a nominal 20,000-gallon aboveground clarification tank, where the water is held and the flocculant and solids separate from the water. Supernatant then overflows from the clarifier into a second 20,000-gallon aboveground clarification tank from which it is pumped through four, 48-inch diameter sand filters. Effluent from the treatment system then is discharged to the Lauritzen Channel near the interceptor SW-5 outfall. TS2 is equipped with variable sped drive for pump control, a programmable logic controller, and a human machine interface.

The estimated flow for the SW-3 to SW-7 catchments that results from a 0.2 inches per hour design storm intensity⁴ is approximately 500 gallons per minute (gpm). TS2 is designed to treat approximately 650 gpm, or approximately 130% of the required flow. Additionally, due to the storage volume provided by interceptors, clarifiers and equalization tank, the system is able to capture and treat periods of storm water flow in excess of 650 gpm before treatment bypass occurs.

³ The storm water treatment system was described in the 2014-2015 annual report and a telephone conversation (December 26, 2014) and email correspondence (January 26, 2016) between Rachelle Thompson of USEPA and Scott Bourne of Weiss Associates.

⁴ Design criteria for flow-based treatment established in IGP (SWRCB, 2014).



3 OPERATION AND MAINTENANCE

3.1 Upland Cap Maintenance

During the 2015-2016 reporting year, LRTC monitored the performance of concrete cap and gravel cover in accordance with recommendations contained in the 2014-2015 Annual Report (Weiss Associates [Weiss], 2015b). Deteriorating concrete identified in the southern portion of the eastern swale of the Main Terminal was observed to remain intact. LRTC continuously monitored other cracks, seals, and joints for signs of propagation and/or degradation. No evidence of underlying soil was observed. The upland cap functioned as designed and no maintenance or major repair of the cap was conducted during the current reported period.

LRTC began two projects during the reporting period which involved the upland cap: 1) installation of a roadway across three railroad tracks in the northern portion of the upland cap area (Appendix A; Photo 11); and 2) installation of new concrete along the western edge of the cap in an area previously covered by wood timbers (Appendix A; Photos 2, 4 and 6) (Figure 3). These construction activities are being undertaken in order to widen the existing roadway and provide additional drainage control. Both are anticipated to continue through the 2016-2017 reporting year. Neither activity resulted or is expected to result in the disturbance of underlying soil. Work is being performed during dry-weather conditions.

3.2 Shotcrete Placement and Pipe Abandonment

During seasonal low tides from May 9 to 13 and June 6 to 9, 2016, LRTC placed shotcrete along the shoreline and at the base of the sheet pile wall. Work was performed as part of LRTC's regular dock maintenance. New shotcrete was applied in two areas: between bents 21 and 30 and between bents 61 and 69.5.⁵ Shotcrete was also added to reinforce previously placed shotcrete between bents -1 and -12. The shotcrete mixture consisted of cement, aggregate, and fiber reinforcement. Shotcrete was placed between elevation -1.0 feet mean lower low water (MLLW), which is the lowest elevation that could be achieved while remaining above the tideline, and elevation 5 feet MLLW, where the shoreline meets the existing seawall.

In preparation for the shotcrete placement, LRTC capped two abandoned cast iron pipes protruding from the shoreline (Figure 3). One of pipes was believed to be P1-5 (at bent 20.5), which was a 10-inch metal pipe identified by USEPA during previous field investigations (CH2M Hill, 2012). At the same location, LRTC encountered a second 1.5-inch diameter pipe not previously identified by USEPA, which appeared to be a spare electrical conduit. LRTC cut pipe P1-5 and the spare conduit back to the seawall and placed a cap over the ends. LRTC also encountered what appeared to be pipe P4-10 at bent 26.5. Upon inspection, LRTC found P4-10 to be a 4-inch metal tube that that was embedded less than two feet into the shoreline. LRTC removed P4-10 from the shoreline. LRTC observed no evidence of flow from the pipes.

3.3 Storm Water Collection System Inspection and Cleaning

LRTC inspected the storm water drain inlets and interceptors prior to the rainy season, and monthly through April. LRTC inspected and cleaned storm water interceptors SW-3 to SW-7 between July 27 and August

⁵ The shoreline between bents 61 and 69.5 is south of the upland cap.



13, 2015. Accumulated material was removed from the interceptors. This material appeared to be primarily bulk product and was returned to the bulk product piles.

LRTC inspects drain inlets monthly per its Storm Water Pollution Prevention Plan (SWPPP; Weiss Associates [Weiss], 2015a). LRTC regularly cleaned inlets and replaced inlet filters per the SWPPP.

3.4 Storm Water Monitoring

The objective of the storm water monitoring program is to verify the cap is effectively preventing release of soils potentially containing residual concentrations of to the Lauritzen Channel. This section describes storm water sampling, results, quality assurance/quality control procedures; and includes an assessment of results.

3.4.1 Storm Water Sampling

During the 2015-2016 reporting year, LRTC sampled industrial storm water discharges in accordance with State Water Resources Control Board (SWRCB) Water Quality Order No. 2014-0057-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit for Storm Water Discharges Associated with Industrial Activities) (the IGP) (SWRCB, 2014); the O&M Plan (PES, 1999a); and, a Consent Decree between San Francisco Baykeeper and the Levin Richmond Terminal Corporation (United States District Court, 2014). Storm water monitoring requirements are documented in LRTC's SWPPP.

Prior to 2015, LRTC collected samples from interceptors' SW-3 through SW-7. Since installing advanced treatment system TS2, LRTC no longer regularly discharges storm water at these locations. As a result, LRTC now collects storm water samples from the TS2 influent and effluent.⁶ In the event that elevated pesticides are detected in the TS2 influent or effluent, LRTC is prepared to resume sample at interceptors SW-3 through SW-7.

Storm water samples were submitted to Eurofins CalScience Environmental Laboratories (Calscience) in Concord, California for pesticide analysis by USEPA Method 8081A. Each sample was run using both standard 8081A analysis and low-level 8081A analysis to achieve lowest possible method detection limits (MDLs). Storm water samples were also submitted to TestAmerica Laboratories in Pleasanton, California for the following analyses: pH by Standard Method 4500, total suspended solids (TSS) by Standard Method 2540D, oil and grease (O&G) by USEPA 1644A, and metals by USEPA Method 200.8. Original laboratory reports, including applicable chain-of-custody forms, are included in Appendix B.⁷

3.4.2 Sample Results

During the 2015-2016 reporting year, storm water from the combined TS2 influent and effluent was sampled during four storm events: November 2, 2015; December 3, 2015; January 13, 2016; and, January 22,

⁶ Changes to storm water monitoring were discussed during a telephone conversation on November 3, 2015 between Rachelle Thompson of USEPA and Scott Bourne of Weiss Associates.

⁷ Laboratory analytical reports include data for other storm water discharge points at LRT (TS1-E, TS3-E, SW-11).



2016. The November 2, 2015 sampling event occurred during the first storm event (0.5 inches of rainfall)⁸ producing discharge for the 2015-2016 rainy season; its results represent the year's first flush.

Tables 1 and 2 show laboratory analytical results for pesticides and general parameters/metals, respectively. Pesticides were not detected in the treated storm water discharge from TS2 during any of the four sampling events during the 2015-2016 reporting year. TS2 discharge results for all other pollutants (metals, O&G pH and TSS) were below the IGP numeric action levels (NALs).

Samples of the combined influent to TS2 were also collected during each of the four events for use in evaluation of treatment system effectiveness. During the December 3, 2015 sampling event, 4,4-DDE and 4,4-DDT were detected in the combined, untreated TS2 influent at concentrations of 0.0075 micrograms per liter (μ g/L) and 0.022 μ g/L, respectively. No other pesticides were detected in the influent storm water samples collected during the reporting year.

3.4.3 Quality Assurance/Quality Control

The O&M Plan requires at least one duplicate sample be collected per storm sampling event. During the 2015-2016 reporting year, duplicate samples were submitted from the December 3, 2015 and January 13 and 22, 2016 sampling events. During the November 2, 2015 sampling event a duplicate sample was submitted for a discharge location not associated with the upland cap area at LRT. Laboratory MDLs for 2,4'-DDD, 4,4'-DDD, 2,4-DDE, 4,4-DDE, and, 4,4'-DDT were each below the total DDT final surface water remediation level established in the ROD (USEPA, 1994b) (0.00059 μ g/L) for all events. The laboratory method reporting limits (MRLs) for all DDT isomers and MDL for 2,4'-DDT exceeded the final surface water remediation levels for all events. The analytical laboratory reports that lower MDLs/MRLs are not achievable using USEPA Method 8081A. No other data quality issues were reported through the data validation process. Based on the data validation process, the data resulting from this investigation are acceptable and complete.

3.4.4 Assessment of Results

The pesticides detected in storm water samples collected at influent of TS2 during the 2015-2016 storm water season were consistent with historical concentrations. Concentration trend charts for DDT and dieldrin for storm water discharge locations from 2011 to 2015 are contained in the 2014-2015 Annual Report (Weiss, 2015b). Because LRTC has replaced discharge from individual interceptors with treatment at TS2 and combined discharge, trend charts will only be presented for DDT⁹ at TS2 (Figure 4). The chart provides both detected concentrations and non-detect results.¹⁰

Pesticide concentrations in effluent storm water samples collected during the 2015-2016 storm water season were below MDLs for the four sampling events performed. Sample results show that TS2 is effective at reducing concentrations of TSS and pesticides.

⁹ Note that plotted DDT values are for the sum of the 4,4'- and 2,4'- isomers of DDT, DDD, and DDE.

⁸ Rainfall from LRTC rain gauge.

¹⁰ Denoted by "<n", where n is the sum of the DDT, DDD, and DDE detection limits, if available, or reporting limit otherwise.



3.5 Storm Water Treatment System Operation

LRTC completed TS2 installation on October 1, 2015. LRT received approximately 23 inches of rainfall¹¹ during the 2015-2016 reporting period. LRTC reports that TS2 provided sufficient treatment capacity to prevent treatment system bypass for all periods where its operation was observed. No significant operation and maintenance concerns were encountered. Sample results show that TS2 is effective at reducing effluent pesticide concentrations to levels below laboratory MDLs.

¹¹ Rainfall from LRTC rain gauge.



4 ANNUAL SITE INSPECTION

Representatives of LRTC and CDIM inspected the upland cap on May 31, 2016. The inspection included visual observations of the concrete cap, gravel cover, and drainage system throughout the observable extent of the upland cap area. Appendix A includes photographs taken during the inspection. Figure 3 shows the locations of photographs. Appendix C includes the inspection form.

4.1 Concrete Cap Inspection

Visual inspections concentrated on identifying signs of deterioration and exposure of the underlying subgrade at cracks, joints, high-loading areas, gravel and cap penetrations. Areas identified in the Third Five-Year Review (USEPA, 2011) and the 2014-2015 Annual Report (Weiss, 2015b) with cracks and potential settlement were reexamined.

- **SW-3 Area** Minor surficial cracks were observed within and to the west of the bulk product storage area, with heavier cracks and seams located to the northwest of interceptor SW-3 (Appendix A; Photos 1, 3, and 5). New concrete was observed along the western edge of the SW-3 area (Appendix A; Photos 2 and 4).
- **SW-4 Area** Areas of minor surficial cracks were observed throughout the SW-4 area. Cracks and sealant were noted extending from the southeast corner of interceptor SW-4 toward the east and surrounding drain inlet 4DI-19 (Appendix A; Photos 7 and 8). New concrete work along the western edge of SW-4 was also observed (Appendix A; Photos 6 and 9).
- SW-5 Area Minor cracks were noted in the vicinity of interceptor SW-5 and treatment system TS2. Construction of the new road was observed to be in progress (Appendix A; Photo 11).
- **SW-6 Area** Minor cracks were noted north and northeast of interceptor SW-6, and south of the rail tracks (Appendix A; Photos 14, 15, and 17). Small areas of concrete deterioration were observed in the southern portion of the eastern swale of the Main Terminal (Appendix A; Photos 18 and 19).
- **SW-7 Area** Minor surficial cracks were observed in this area.

No evidence of differential settling or vertical displacement was observed. No evidence of cracks, gaps, significant cap deterioration, or other material breach with apparent potential for exposure of the underlying subgrade was observed during the inspection. CDIM recommends that LRTC continue to monitor cracks and deterioration noted during the inspection. No repairs are recommended at this time.

4.2 Gravel Cover Inspection

Visual observations of the gravel cover concentrated on identifying areas around the rail and shoreline where gravel cover was thin. A geotextile membrane underlies the gravel cover, but was not visually observed in any of the areas inspected. Below is a summary of observations from the concrete cap inspection.

- **SW-4 Area** Some gravel cover has been replaced with concrete along the western edge of the area (Appendix A; Photo 4).
- **SW-5 Area** The gravel cover appeared thin in some areas; the underlying geotextile fabric was not exposed (Appendix A; Photos 10 and 13).



• **SW-6** Area – The gravel cover appeared thin in between the rail tracks; the underlying geotextile fabric was not exposed (Appendix A; Photo 12).

No visual evidence of differential settling or vertical displacement was observed. Overall, the gravel cover was found to be in good condition and functioning properly with no apparent potential for exposure of the underlying subgrade observed. CDIM recommends that LRTC continue to regularly inspect the gravel cover and perform maintenance as detailed in Section 6.

4.3 Shoreline Reconnaissance and Wet Weather Sampling

LRTC met with USEPA and Montrose Chemical Corporate of California (Montrose) on November 11 and December 9 to discuss a proposed wet-weather sampling plan from Montrose and its consultants (Anchor QEA) for pipes identified by USEPA beneath the dock (CH2M Hill, 2012). LRTC performed shoreline reconnaissance on November 11, 2015 and with Anchor QEA on November 19, 2015. The objective of these reconnaissance inspections was to locate pipes, outfalls and seeps identified by USEPA (CH2M Hill, 2015), established whether dry-weather flow exists, and to plan for wet weather sampling. From this reconnaissance, LRTC identified 15 pipes and conduits along the LRTC shoreline with no known purpose. No dry weather flow was observed from the pipes during either site reconnaissance.

During the December 9, 2016 meeting, LRTC agreed to provide Anchor QEA access for wet-weather sampling of the identified pipes outfalls and seeps for pesticide analysis. On December 15, 2015, Montrose unilaterally stopped negotiation of an access agreement.



5 PROPOSED SITE WORK FOR 2016-2017

During the 2016-2017 reporting year, O&M activities will continue as follows:

- Storm water discharge samples will be collected from the TS2 treatment system effluent (combined SW-3 through SW-7) discharge location. TS2 influent samples will also be collected to evaluate system effectiveness.
- A survey of the upland cap will be completed in the late spring of 2017 to monitor for differential settlement that could impact cap integrity. It will be compared against the baseline survey completed in May 2014 and included in the 2013-2014 Annual Report (Weiss, 2014).
- An annual inspection of the concrete cap and gravel cover in the upland cap area will be performed in the early summer of 2017.
- Regular inspections of the upland capping system, including the drainage system, will continue as part of the SWPPP (Weiss, 2015a) compliance activities and daily operations.

Any repairs to the cap, if required, will be documented and reported in a memorandum to the USEPA and the California Department of Toxic Substances Control. Proposed site work under the O&M Plan for 2016-2017 is presented in Table 3.

LRTC is in the process of installing a roadway in the upland cap area across three railroad tracks, and concrete berm along the western edge of the cap (Section 3.1; Figure 3). This work is planned to be completed during the 2016-2017 reporting year.



6 CONCLUSIONS AND RECOMMENDATIONS

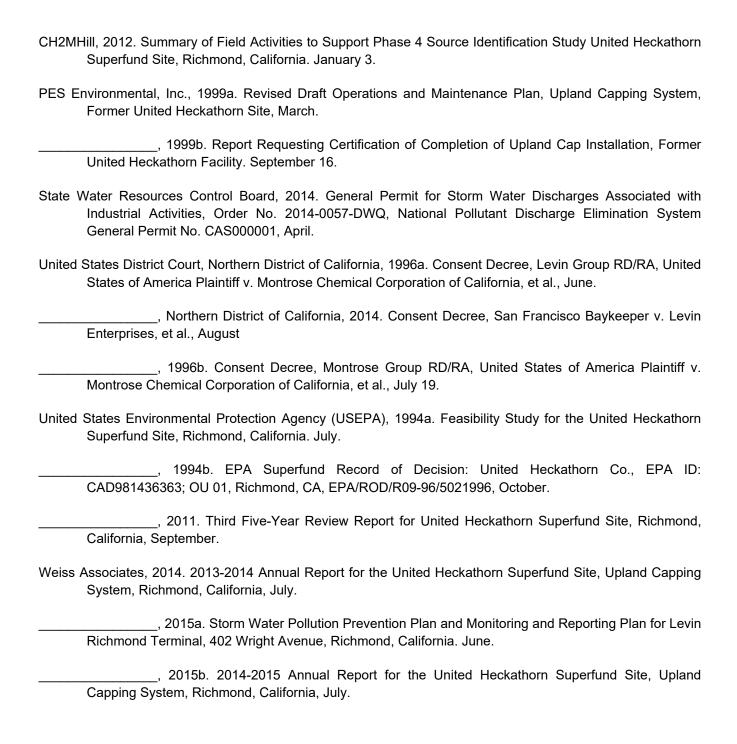
The annual upland capping system inspection found that the surface cap is in overall good condition and effectively functions to prevent erosion of the underlying soil. Storm water sampling results from the upland cap area indicate that treatment system TS2 is effective in reducing the discharge of pesticides via the storm water collection system.

The following maintenance and monitoring activities are recommended:

- Monitor gravel cover areas of SW-5 and SW-6;
- Monitor deteriorated concrete in the southern portion of the eastern swale of the Main Terminal at SW-6, and replace affected sections of concrete should further deterioration occur or evidence of underlying soil be observed;
- Implement BMPs identified in the LRT SWPPP (Weiss, 2015a); and,
- Monitor storm water discharges for the presence of pesticides.



7 REFERENCES





TABLES



Table 1. 2015-2016 Storm Water Sampling Data for Pesticides, Levin Richmond Terminal Corporation

Discharge Location	Notes	od 2,4'-DDD	б ү.4- DDD	ර් 2,4'-DDE	ර් 4,4'-DDE	hg/r	ත් 2,4'-DDT	рб 4,4 -DDT	ρφ Total DDT	μg/L	л/б ^н	க் alpha-Chlordane	л/бћ	T/D Chlordane	d cis-Nonachlor	delta-BHC	μg/L	են Endosulfan I	ار Endosulfan II	க் Endosulfan sulfate ⊓	μg/L	ଦ Endrin aldehyde	ղեն Endrin ketone	ط مgamma-BHC (Lindane)	ന് pg gamma-Chlordane	க் Heptachlor	ط Heptachlor epoxide	க் Methoxychlor	oxychlordane المركبة	تر Toxaphene	trans-Nonachlor ا
INFLUENT																															
TS2-I ^a																															
11/2/2015		<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
12/3/2015		<0.0005	<0.0005	<0.0005	0.0075	<0.001	<0.001	0.022		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
1/13/2016		<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
1/22/2016		<0.0005	<0.0005	<0.0005	<0.0005		<0.00099	<0.0005		<0.0005	<0.027	<0.0017	<0.029	<0.32		<0.028	<0.0005	<0.027	<0.026	<0.028	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.024		<0.025	
EFFLUENT	Γ	1																													
TS2-E ^b																															
11/2/2015		<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.027	<0.0017	<0.029	<0.32		<0.027	<0.0005	<0.027	<0.028	<0.096	<0.0005	<0.025		<0.0005	<0.0017	<0.0005	<0.0005	<0.024		<0.025	
12/3/2015		<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33	<0.0017	<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026	<0.024	<0.0005	<0.0017	<0.0005	<0.0005	<0.025 <	<0.0017	<0.025	<0.0017
12/3/2015	Duplicate	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33	<0.0017	<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026	<0.024	<0.0005	<0.0017	<0.0005	<0.0005	<0.025 <	<0.0017	<0.025	<0.0017
1/13/2016		<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
1/13/2016	Duplicate	<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
1/22/2016		<0.0005	<0.0005	<0.0005	<0.0005		<0.001	<0.0005		<0.0005	<0.028	<0.0017	<0.030	<0.33		<0.029	<0.0005	<0.028	<0.027	<0.029	<0.0005	<0.026		<0.0005	<0.0017	<0.0005	<0.0005	<0.025		<0.025	
1/22/2016	Duplicate	<0.00049	<0.0005	<0.00049	<0.0005		<0.00099	<0.0005		<0.0005	<0.028	<0.0017	<0.031	<0.34		<0.030	<0.0005	<0.029	<0.028	<0.030	<0.0005	<0.028		<0.0005	<0.0017	<0.0005	<0.0005	<0.026		<0.025	
Remediation	Goal ^c								0.00059								0.00014														

Notes:

Detected concentrations of pesticides are displayed in **bold**.

Acronyms/Abbreviations:

J = concentration reported is an estimated value

< n =not detected above the <u>detection</u> limit

μg/L = micrograms per liter

USEPA = United States Environmental Protection Agency

--- = not analyzed

^a TS2-I is the combined influent from interceptors SW-3 to SW-7 and does not represent discharge. It is used to evaluate TS-2 effectiveness.

^b TS2-E is the effluent of treatment system TS-2, which treats storm water from interceptors SW-3 to SW-7.

^c Based on USEPA Superfund Record of Decision: United Heckathorn Co., October 1994, for surface waters in the Lauritzen, Santa Fe, and lower Richmond Inner Harbor Channels.



Table 2. 2015-2016 Storm Water Sampling Data for General Parameters and Metals, Levin Richmond Terminal Corporation

Discharge Location	Notes	Hd -	ਤ ਨੂੰ Total Oil and Grease		a Total Suspended ├/Solids	Aluminum	μg/L		μg/L		ру Геаd		μg/L		Zinc μg/L
INFLUENT															
TS2-I ^a 11/2/2015 12/3/2015 1/13/2016 1/22/2016		7.62 7.82 7.71	<5.2 3.3 <3.9		240 170 98 23	1,900 1,000 370 210	26 25 11 9.9	В	3,100 2,800 1,300 900	В	76 150 22 6.5	ВВ	11 0.84 3.2 1.7	J	570 380 120 78
EFFLUENT	•	•													
TS2-E ^b 11/2/2015 11/2/2015 12/3/2015 12/3/2015 1/13/2016 1/13/2016 1/22/2016 1/22/2016	Duplicate Duplicate Duplicate Duplicate	8.00 8.01 7.78 7.79 7.66 7.71 7.77	<5.8 <5.8 <5.4 <5.3 1.5 2.1 <4.0 <3.9	J,B J,B	4.8 4.8 1.1 <1.0 <1.0 <1.0 <1.0 <1.0	<100 <100 <100 <100 <100 <100 <100 <100	7.1 6.4 4.7 4.6 13 79 3.7 9.3	ВВВ	92 77 38 39 26 69 34 68	J,B J,B J J	1.2 1.1 1.4 1.4 6.2 28 0.5 0.99	В В	4.3 4.2 2.1 2.1 0.75 1.2 0.89 0.99	J J J	91 92 120 120 45 110 57

Notes:

Acronyms/Abbreviations:

--- = not analyzed

 $< n = \text{not detected above the } \underline{\text{reporting}} \text{ limit}$

B = compounds was found in blank and sample

J = concentration reported is an estimated value

mg/L = milligrams per liter

^a TS2-I is the combined influent from interceptors SW-3 to SW-7 and does not represent discharge. It is used to evaluate TS-2 effectiveness.

^bTS2-E is the effluent of treatment system TS-2, which treats storm water from interceptors SW-3 to SW-7.



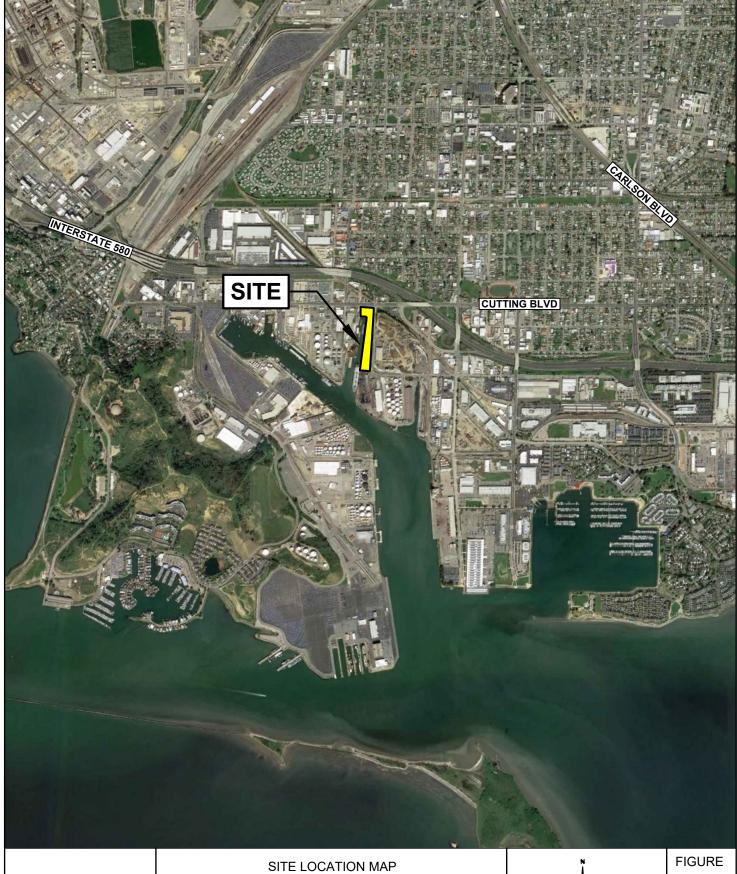
Table 3. Proposed Site Work for 2016-2017, Levin Richmond Terminal Corporation

Aspect	Description	Anticipated Completion Date
General	Implement activities (i.e., cap maintenance, storm water monitoring, interceptor cleanout) described in the O&M Plan. ¹	Continuously
	Submit report of O&M performed for the period of July 1, 2016 to June 30, 2017.	On/around August 15, 2017
Concrete Cap	Perform 2016-2017 annual inspection of the cap under oversight of a registered engineer.	June 1, 2017
	Perform the second triennial survey of the upland cap area to monitor for differential settlement.	June 1, 2017
	Monitor deteriorated concrete in the southern portion of the eastern swale of the Main Terminal identified in Photos 18 and 19 (Appendix A); replace affected sections should evidence of underlying soil be observed.	Continuously
	Monitor identified cracks, seals, and joints for signs of propagation and/or degradation throughout upland capping system.	Continuously
Gravel Cover	Monitor the gravel cover throughout the Upland Area for signs of thinning or ground exposure.	Continuously
Storm Water System	Continue to treat combined storm water pumped from interceptors SW-3, SW-4, SW-5, SW-6, and SW-7 at treatment system TS-2 using flocculation, settling, and filtration methods.	Continuously

¹ Revised Draft Operations and Maintenance Plan, Upland Capping System, Former United Heckathorn Site, PES Environmental, Inc., March 1999.

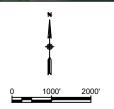


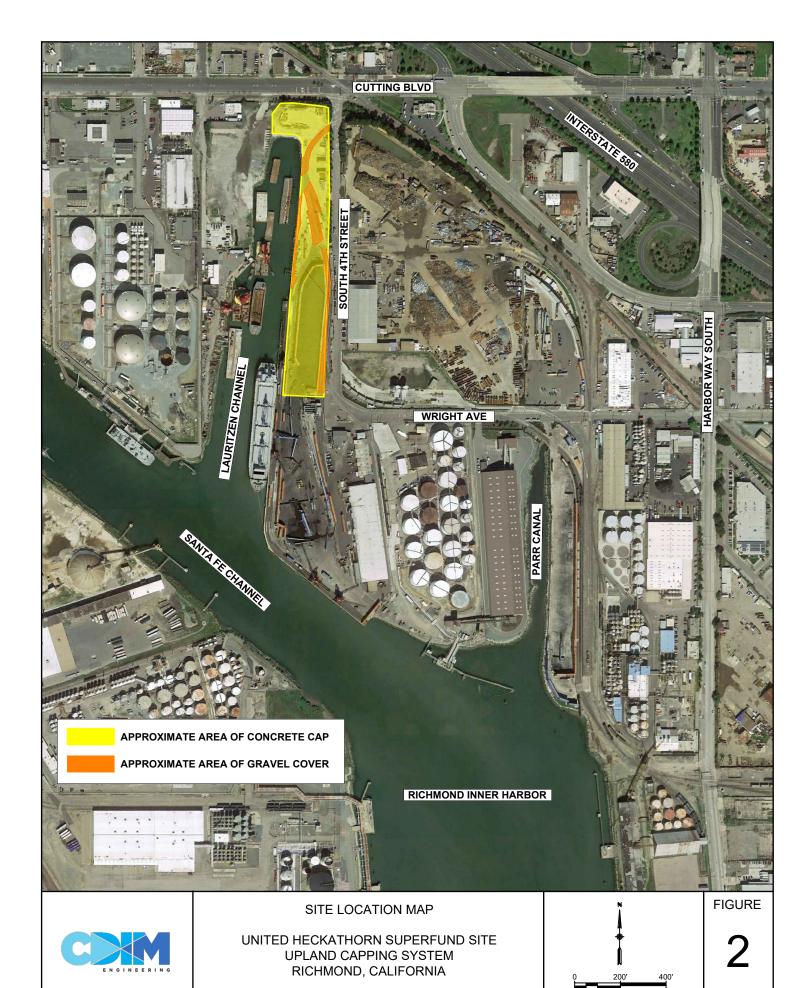
FIGURES



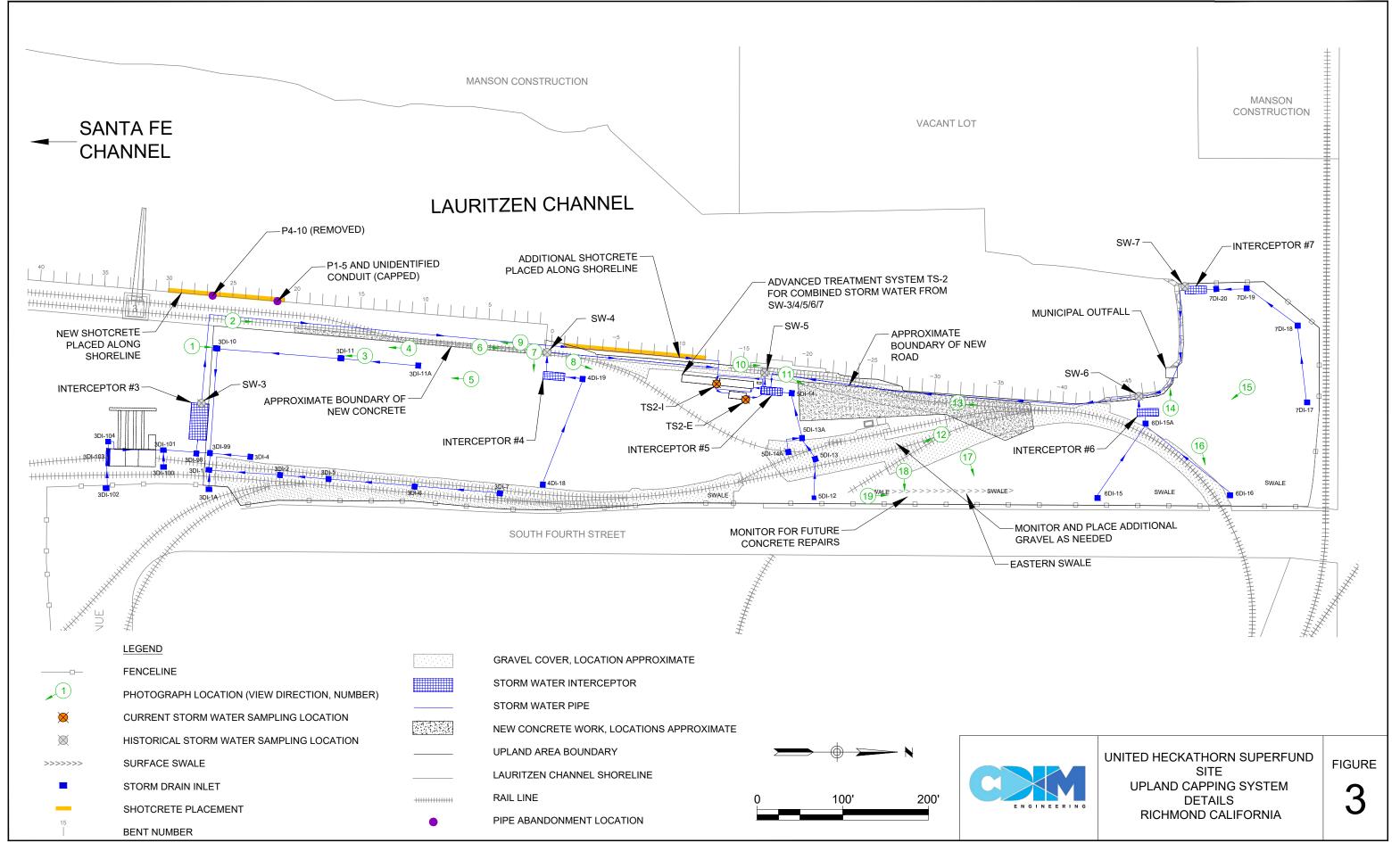


UNITED HECKATHORN SUPERFUND SITE UPLAND CAPPING SYSTEM RICHMOND, CALIFORNIA











APPENDIX A

Upland Capping System Inspection Photos



Appendix A Upland Capping System Inspection Photographs 2015-2016 Annual Report, United Heckathorn Superfund Site Richmond, California



Photo 1 – Looking north from drain inlet 3DI-10, along western alley of secondary storage area: surficial cracking and concrete seams in SW-3 area, with sealed crack in foreground.

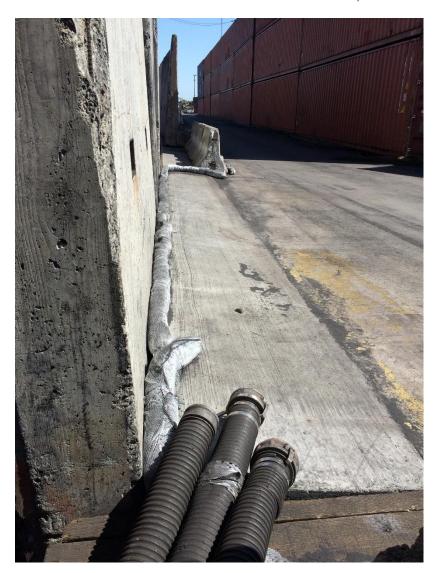


Photo 2 – Looking north along western alley of secondary storage area: new concrete extending road in an area that was formerly gravel and timbers.



Appendix A
Upland Capping System Inspection Photographs
2015-2016 Annual Report, United Heckathorn Superfund Site
Richmond, California

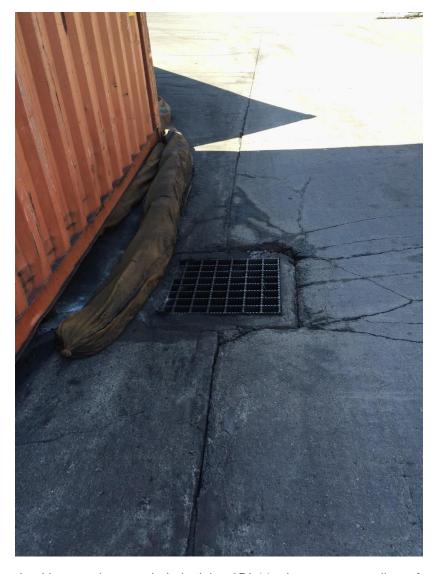


Photo 3 – Looking south toward drain inlet 3DI-11 along western alley of secondary storage area: surficial cracking and concrete seam in SW-3 area.



Photo 4 – Looking south along western edge of secondary storage area: new concrete near drain inlet 3DI-11.



Appendix A
Upland Capping System Inspection Photographs
2015-2016 Annual Report, United Heckathorn Superfund Site
Richmond, California

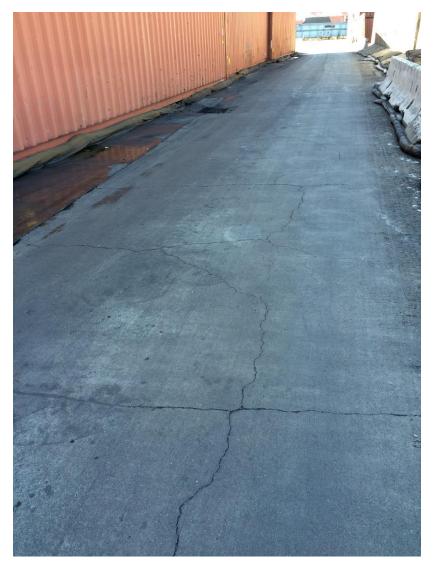


Photo 5 - Looking south toward drain inlet 3DI-11A: areas of surficial cracking.

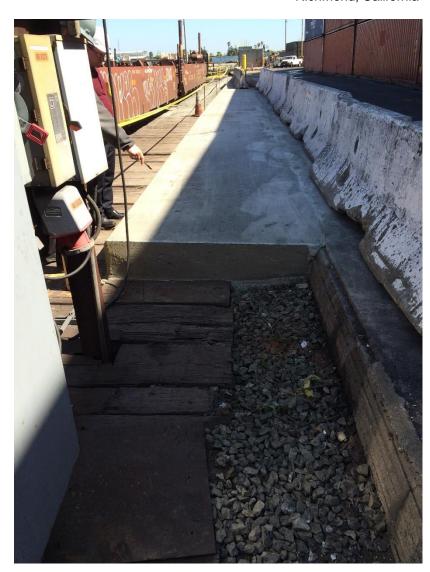


Photo 6 – Looking north, along western alley of secondary storage area: new concrete added.



Appendix A Upland Capping System Inspection Photographs 2015-2016 Annual Report, United Heckathorn Superfund Site Richmond, California

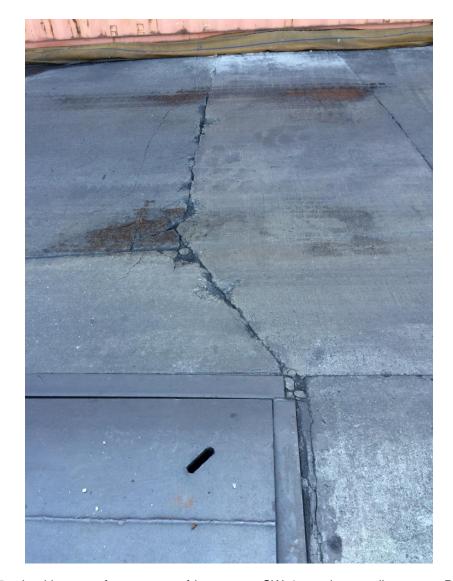




Photo 7 – Looking east from corner of interceptor SW-4: crack extending east Photo 8 – Looking northeast toward 4DI-19: surficial cracks with sealant added. with sealant and concrete wearing at seams.



Appendix A Upland Capping System Inspection Photographs 2015-2016 Annual Report, United Heckathorn Superfund Site Richmond, California

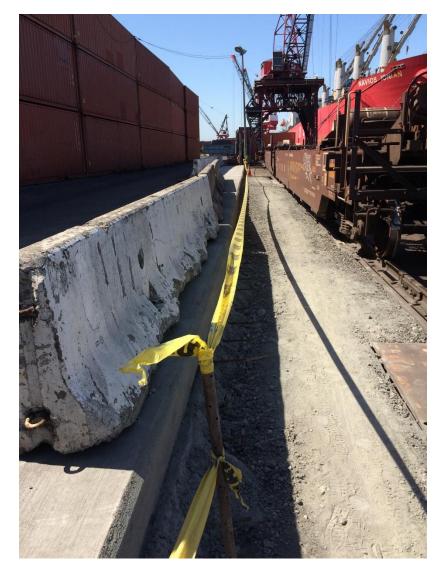


Photo 9 - Looking south: new concrete work in progress.

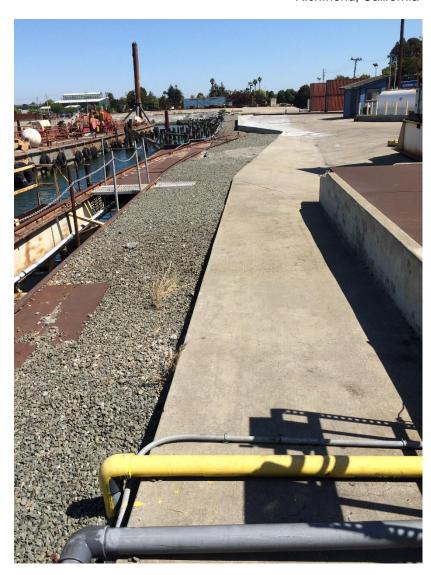


Photo 10 - Looking north: gravel cover to the west of treatment system TS-2 and interceptor SW-5.



Appendix A Upland Capping System Inspection Photographs 2015-2016 Annual Report, United Heckathorn Superfund Site Richmond, California



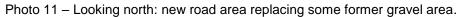




Photo 12 – Looking south: gravel cover.





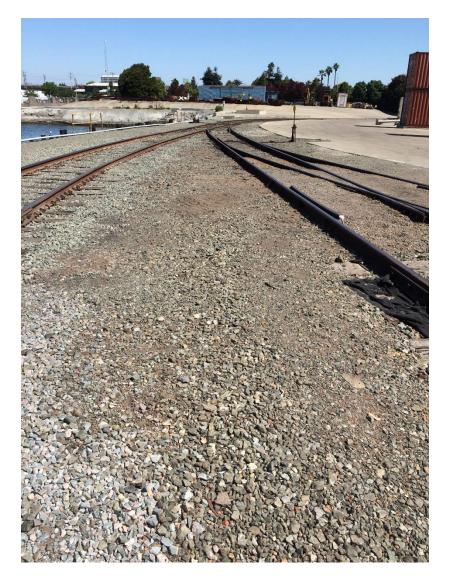


Photo 13 – Looking north: gravel cover between rail tracks.

Photo 14 – Looking west toward Municipal outfall: seams and surficial cracks. No change from last year.



Appendix A
Upland Capping System Inspection Photographs
2015-2016 Annual Report, United Heckathorn Superfund Site
Richmond, California

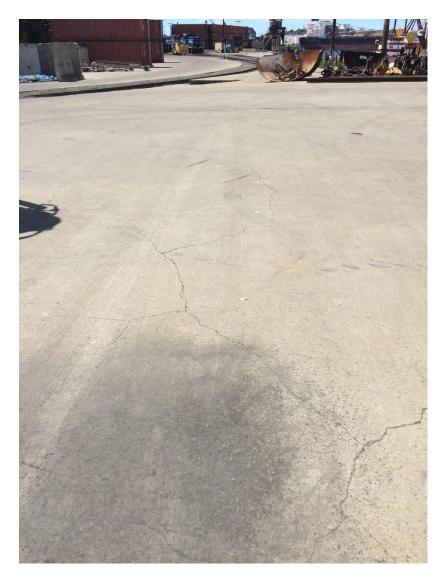


Photo 15 – Northwest corner of site: minor surface cracks.

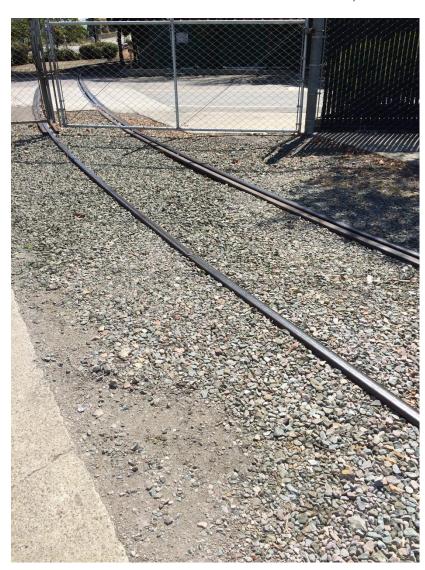


Photo 16 – Gravel cover adjacent to gate at northeastern corner of yard.



Appendix A
Upland Capping System Inspection Photographs
2015-2016 Annual Report, United Heckathorn Superfund Site
Richmond, California



Photo 17 – Area southeast of interceptor SW-6: minor surface cracks. No change from last year.



Photo 18 – Looking east, north of 5DI-14A: areas of minor concrete deterioration. No change from last year.







Photo 19 - Looking east, north of 5DI-14A: areas of minor concrete deterioration. No change from last year.



APPENDIX B

Laboratory Analytical Reports



Calscience



WORK ORDER NUMBER: 15-11-0230

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2014-2015 Annual Storm Water

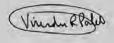
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 11/11/2015 by:

Virendra Patel Project Manager



ResultLink ▶

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2014-2015 Annual Storm Water Samplin	g / 426-2026.01 Task 1.1.3

Work Order Number: 15-11-0230

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2	Sample Summary	2
3	Client Sample Data	5
4	Quality Control Sample Data. 4.1 LCS/LCSD.	
5	Sample Analysis Summary	10
6	Glossary of Terms and Qualifiers	11
7	Chain-of-Custody/Sample Receipt Form	12



Work Order Narrative

Work Order: 15-11-0230 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/04/15. They were assigned to Work Order 15-11-0230.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925

Emeryville, CA 94608-1879

Work Order:

15-11-0230

LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time

Received:

Number of

2

11/04/15 10:25

Containers:

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-I-2015-1	15-11-0230-1	11/02/15 09:30	2	Aqueous



Weiss Associates Date Received: 11/04/15 2200 Powell Street, Suite 925 Work Order: 15-11-0230 Emeryville, CA 94608-1879 Preparation: EPA 3510C Method: EPA 8081A

Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2015-1	15-11-0230-1-A	11/02/15 09:30	Aqueous	GC 44	11/05/15	11/06/15 13:15	151105L14
Comment(s): - Results were eva	luated to the MDL (DL), con-	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	Qualifiers
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	83		50-135				
2,4,5,6-Tetrachloro-m-Xylene	85		50-135				

Method Blank	099-12-529-854 N/A	Aqueous	GC 44	11/05/15	11/06/15 12:04	151105L14
Comment(s): - Results were evalu	uated to the MDL (DL), concentrat	ions >= to the MDL (D	L) but < RL (LOC	Q), if found, are	qualified with a ".	J" flag.
<u>Parameter</u>	Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qu</u>	<u>alifiers</u>
Alpha-BHC	ND	0.10	0.028	1.00		
Beta-BHC	ND	0.10	0.030	1.00		
Delta-BHC	ND	0.10	0.029	1.00		
Endosulfan I	ND	0.10	0.028	1.00		
Endrin Aldehyde	ND	0.10	0.026	1.00		
Endosulfan II	ND	0.10	0.027	1.00		
Endosulfan Sulfate	ND	0.10	0.029	1.00		
Methoxychlor	ND	0.10	0.025	1.00		
Chlordane	ND	1.0	0.33	1.00		
Surrogate	<u>Rec. (%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	81	50-135				
2,4,5,6-Tetrachloro-m-Xylene	82	50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

15-11-0230 EPA 3510C EPA 8081A

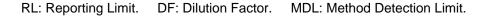
11/04/15

ng/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2015-1	15-11-0230-1-AB	11/02/15 09:30	Aqueous	GC 44	11/09/15	11/10/15 13:12	151109L01
Comment(s): - Results were evaluated to	o the MDL (DL), cond	entrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u> t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	76		50-150				
2,4,5,6-Tetrachloro-m-Xylene	109		50-150				





Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

15-11-0230 EPA 3510C EPA 8081A

11/04/15

ng/L

Units:

Page 2 of 2

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

2020.01 Task 1.1.5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-3	N/A	Aqueous	GC 44	11/09/15	11/10/15 12:57	151109L01
Comment(s): - Results were eva	aluated to the MDL (DL), cor	ncentrations >=	to the MDL (DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Res	<u>ult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec	. (%)	Control Limits	Qualifiers			
Decachlorobiphenyl	59		50-150				
2,4,5,6-Tetrachloro-m-Xylene	78		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

11/04/15 15-11-0230 **EPA 3510C** EPA 8081A

Page 1 of 2

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

0.5000

0.5000

0.5000

0.4135

0.4002

0.4363

83

80

87

Quality Control Sample ID	Туре		Matrix	Instr	ument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-12-529-854	LCS		Aqueous	GC 4	14	11/05/15	11/06/	15 12:18	151105L14	
099-12-529-854	LCSD		Aqueous	GC 4	14	11/05/15	11/06/	15 12:32	151105L14	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.3722	74	0.4025	81	50-135	36-149	8	0-25	
Gamma-BHC	0.5000	0.3891	78	0.4174	83	50-135	36-149	7	0-25	
Beta-BHC	0.5000	0.3756	75	0.3958	79	50-135	36-149	5	0-25	
Heptachlor	0.5000	0.3931	79	0.4303	86	50-135	36-149	9	0-25	
Delta-BHC	0.5000	0.3769	75	0.3967	79	50-135	36-149	5	0-25	
Aldrin	0.5000	0.3750	75	0.4093	82	50-135	36-149	9	0-25	
Heptachlor Epoxide	0.5000	0.3939	79	0.4166	83	50-135	36-149	6	0-25	
Endosulfan I	0.5000	0.4010	80	0.4201	84	50-135	36-149	5	0-25	
Dieldrin	0.5000	0.4120	82	0.4315	86	50-135	36-149	5	0-25	
4,4'-DDE	0.5000	0.4012	80	0.4186	84	50-135	36-149	4	0-25	
Endrin	0.5000	0.4286	86	0.4522	90	50-135	36-149	5	0-25	
Endrin Aldehyde	0.5000	0.4061	81	0.4391	88	50-135	36-149	8	0-25	
4,4'-DDD	0.5000	0.4052	81	0.4195	84	50-135	36-149	3	0-25	
Endosulfan II	0.5000	0.4058	81	0.4243	85	50-135	36-149	4	0-25	

0.4285

0.4267

0.4548

86

85

91

50-135

50-135

50-135

36-149

36-149

36-149

4

6

4

0-25

0-25

0-25

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

Methoxychlor

Endosulfan Sulfate

4,4'-DDT

RPD: Relative Percent Difference. CL: Control Limits





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

11/04/15 15-11-0230 EPA 3510C EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Quality Control Sample ID	Type		Matrix	Instr	ument	Date Prepare	d Date Ar	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-3	LCS		Aqueous	GC 4	! 4	11/09/15	11/10/1	5 12:29	151109L01	
099-16-704-3	LCSD		Aqueous	GC 4	14	11/09/15	11/10/1	5 12:43	151109L01	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Aldrin	33.35	23.13	69	26.74	80	50-150	33-167	14	0-25	
4,4'-DDD	33.35	25.88	78	28.82	86	50-150	33-167	11	0-25	
4,4'-DDE	33.35	25.31	76	28.00	84	50-150	33-167	10	0-25	
4,4'-DDT	33.35	26.57	80	29.53	89	50-150	33-167	11	0-25	
Alpha Chlordane	33.35	24.49	73	27.08	81	50-150	33-167	10	0-25	
Dieldrin	33.35	26.48	79	28.88	87	50-150	33-167	9	0-25	
Gamma Chlordane	33.35	24.66	74	27.31	82	50-150	33-167	10	0-25	
Endrin	33.35	29.94	90	32.86	99	50-150	33-167	9	0-25	
Gamma-BHC	33.35	25.31	76	29.31	88	50-150	33-167	15	0-25	
Heptachlor	33.35	25.94	78	30.51	91	50-150	33-167	16	0-25	
Heptachlor Epoxide	33.35	24.69	74	27.40	82	50-150	33-167	10	0-25	

Total number of LCS compounds: 11 Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

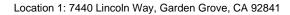
RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 15-11-0230				Page 1 of 1
<u>Method</u>	<u>Extraction</u>	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1
EPA 8081A	EPA 3510C	960	GC 44	1





Glossary of Terms and Qualifiers

Work Order: 15-11-0230 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.

Χ % Recovery and/or RPD out-of-range.

The sample extract was subjected to Silica Gel treatment prior to analysis.

SG

Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

> Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

> Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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INSTRUCTIONS FOR LAB PERSONNEL:

Calscience

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WORK ORDER NUMBER: **15–11–** <u>0230</u>

SAMPLE RECEIPT CHECKLIST

COOLER / OF /

CLIENT: Weiss Assoc.	DATE: 11 / <u>04</u> / 2015
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): /- 9 °C (w/ CF): /- 5 □ Sample(s) outside temperature criteria (PM/APM contacted by:) □ Sample(s) outside temperature criteria but received on ice/chilled on same day of sample Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: □ Air □ Filter	
CUSTODY SEAL: Cooler Present and Intact Present but Not Intact Not Present Not Present Not Present Not Not Present Not Not Present Not Not Not Not Not Not Not Not Not No	76/10
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete Sampling date Sampling time Matrix Number of containers	Yes No N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquishe Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested Samples received within holding time	
Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses	
□ Volatile Organics □ Total Metals □ Dissolved Metals Container(s) for certain analysis free of headspace □ Volatile Organics □ Dissolved Gases (RSK-175) □ Dissolved Oxygen (SM 4500) □ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)	
Tedlar™ bag(s) free of condensation CONTAINER TYPE: (Trip Blank Lot N	
Aqueous: DVOA DVOAh DVOAna2 D100PJ D100PJna2 D125AGB D125AGBh D125	1 125AGBp



Calscience



WORK ORDER NUMBER: 15-11-0231

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2014-2015 Annual Storm Water

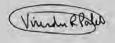
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 11/11/2015 by:

Virendra Patel Project Manager



ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Work Order Number: 15-11-0231

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2	Sample Summary	2
3	Client Sample Data	<u>;</u>
4	Quality Control Sample Data. 4.1 LCS/LCSD.	8
5	Sample Analysis Summary	10
6	Glossary of Terms and Qualifiers	1′
7	Chain-of-Custody/Sample Receipt Form	12



Work Order Narrative

Work Order: 15-11-0231 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/04/15. They were assigned to Work Order 15-11-0231.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order: 15-11-0231

LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time 11/04/15 10:25

Received:

3 Number of

Containers:

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-E-2015-1	15-11-0231-1	11/02/15 08:10	3	Aqueous



Weiss Associates Date Received: 11/04/15 2200 Powell Street, Suite 925 Work Order: 15-11-0231 Emeryville, CA 94608-1879 Preparation: EPA 3510C Method: EPA 8081A

Units: ug/L

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-E-2015-1	15-11-0231-1-A	11/02/15 08:10	Aqueous	GC 44	11/05/15	11/06/15 13:30	151105L14
Comment(s): - Results were eval	uated to the MDL (DL), con-	centrations >=	to the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	Qualifiers
Alpha-BHC	ND		0.096	0.027	1.00		
Beta-BHC	ND		0.096	0.029	1.00		
Delta-BHC	ND		0.096	0.027	1.00		
Endosulfan I	ND		0.096	0.027	1.00		
Endrin Aldehyde	ND		0.096	0.025	1.00		
Endosulfan II	ND		0.096	0.026	1.00		
Endosulfan Sulfate	ND		0.096	0.028	1.00		
Methoxychlor	ND		0.096	0.024	1.00		
Chlordane	ND		0.96	0.32	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	79		50-135				
2,4,5,6-Tetrachloro-m-Xylene	84		50-135				

Method Blank	099-12-529-854 N/A	Aqueous	GC 44	11/05/15	11/06/15 151105L14 12:04
Comment(s): - Results were evaluate	ated to the MDL (DL), concentrations	>= to the MDL (DL	.) but < RL (LO	Q), if found, are	qualified with a "J" flag.
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Alpha-BHC	ND	0.10	0.028	1.00	
Beta-BHC	ND	0.10	0.030	1.00	
Delta-BHC	ND	0.10	0.029	1.00	
Endosulfan I	ND	0.10	0.028	1.00	
Endrin Aldehyde	ND	0.10	0.026	1.00	
Endosulfan II	ND	0.10	0.027	1.00	
Endosulfan Sulfate	ND	0.10	0.029	1.00	
Methoxychlor	ND	0.10	0.025	1.00	
Chlordane	ND	1.0	0.33	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Decachlorobiphenyl	81	50-135			
2,4,5,6-Tetrachloro-m-Xylene	82	50-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

Units:

15-11-0231 EPA 3510C EPA 8081A ng/L

11/04/15

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026 01 Task 1 1 3

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2026.01	Task 1.1.3	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-E-2015-1	15-11-0231-1-AB	11/02/15 08:10	Aqueous	GC 44	11/09/15	11/10/15 13:26	151109L01
Comment(s): - Results were evaluate	ed to the MDL (DL), cond	entrations >=	to the MDL (DL	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u> t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>0</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	78		50-150				
2,4,5,6-Tetrachloro-m-Xylene	88		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

15-11-0231 **EPA 3510C** EPA 8081A

11/04/15

ng/L Page 2 of 2

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-3	N/A	Aqueous	GC 44	11/09/15	11/10/15 12:57	151109L01
Comment(s): - Results were evaluated to	to the MDL (DL), con	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	a "J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	59		50-150				
2,4,5,6-Tetrachloro-m-Xylene	78		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

11/04/15 15-11-0231 **EPA 3510C** EPA 8081A

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Date Prepared Date Analyzed LCS/LCSD Batch Number

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Quality Control Sample ID	Туре		Matrix	Instru	ument	Date Prepare	d Date A	nalyzed	LCS/LCSD Ba	tch Number
099-12-529-854	LCS		Aqueous	GC 4	14	11/05/15	11/06/1	15 12:18	151105L14	
099-12-529-854	LCSD		Aqueous	GC 4	14	11/05/15	11/06/1	15 12:32	151105L14	
Parameter	<u>Spike</u> Added	LCS Conc	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.3722	74	0.4025	81	50-135	36-149	8	0-25	
Gamma-BHC	0.5000	0.3891	78	0.4174	83	50-135	36-149	7	0-25	
Beta-BHC	0.5000	0.3756	75	0.3958	79	50-135	36-149	5	0-25	
Heptachlor	0.5000	0.3931	79	0.4303	86	50-135	36-149	9	0-25	
Delta-BHC	0.5000	0.3769	75	0.3967	79	50-135	36-149	5	0-25	
Aldrin	0.5000	0.3750	75	0.4093	82	50-135	36-149	9	0-25	
Heptachlor Epoxide	0.5000	0.3939	79	0.4166	83	50-135	36-149	6	0-25	
Endosulfan I	0.5000	0.4010	80	0.4201	84	50-135	36-149	5	0-25	
Dieldrin	0.5000	0.4120	82	0.4315	86	50-135	36-149	5	0-25	
4,4'-DDE	0.5000	0.4012	80	0.4186	84	50-135	36-149	4	0-25	
Endrin	0.5000	0.4286	86	0.4522	90	50-135	36-149	5	0-25	
Endrin Aldehyde	0.5000	0.4061	81	0.4391	88	50-135	36-149	8	0-25	
4,4'-DDD	0.5000	0.4052	81	0.4195	84	50-135	36-149	3	0-25	
Endosulfan II	0.5000	0.4058	81	0.4243	85	50-135	36-149	4	0-25	
4,4'-DDT	0.5000	0.4135	83	0.4285	86	50-135	36-149	4	0-25	
Endosulfan Sulfate	0.5000	0.4002	80	0.4267	85	50-135	36-149	6	0-25	
Methoxychlor	0.5000	0.4363	87	0.4548	91	50-135	36-149	4	0-25	

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

11/04/15 15-11-0231 EPA 3510C **EPA 8081A**

Page 2 of 2

Project: LRT 2014-2015 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix	ı	nstrument	Date Prepare	d Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-3	LCS		Aqueous	. (GC 44	11/09/15	11/10/1	15 12:29	151109L01	
099-16-704-3	LCSD		Aqueous	. (GC 44	11/09/15	11/10/1	15 12:43	151109L01	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Aldrin	33.35	23.13	69	26.74	80	50-150	33-167	14	0-25	
4,4'-DDD	33.35	25.88	78	28.82	86	50-150	33-167	11	0-25	
4,4'-DDE	33.35	25.31	76	28.00	84	50-150	33-167	10	0-25	
4,4'-DDT	33.35	26.57	80	29.53	89	50-150	33-167	11	0-25	
Alpha Chlordane	33.35	24.49	73	27.08	81	50-150	33-167	10	0-25	
Dieldrin	33.35	26.48	79	28.88	87	50-150	33-167	9	0-25	
Gamma Chlordane	33.35	24.66	74	27.31	82	50-150	33-167	10	0-25	
Endrin	33.35	29.94	90	32.86	99	50-150	33-167	9	0-25	
Gamma-BHC	33.35	25.31	76	29.31	88	50-150	33-167	15	0-25	
Heptachlor	33.35	25.94	78	30.51	91	50-150	33-167	16	0-25	
Heptachlor Epoxide	33.35	24.69	74	27.40	82	50-150	33-167	10	0-25	

Total number of LCS compounds: 11 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 15-11-0231				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1
EPA 8081A	EPA 3510C	960	GC 44	1

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841



Glossary of Terms and Qualifiers

Work Order: 15-11-0231 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.

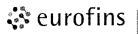
- Χ % Recovery and/or RPD out-of-range.
- Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience

WORK ORDER NUMBER: 15-11-023

SAMPLE RECEIPT CHECKLIST

COOLER / OF /

	DATE: 11	1 04	/ 2015

CF): <u> </u>	<i>:</i>	□ Samp	ole
courier	Chec	ked by: _	836
			16.50
	Yes	No	N/A
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me	# # # # # # # # # # # # # # # # # # #		
n (SM 4500)			ø
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□ 125AGBh □ 500AGB □ □) □ Terra	□ 125AGB p I 500AGJ □ 5 □ aCores [®] (□ 125PB 00AGJs □ _) □	
The result of th	ne day of sample ourier resent No relinquish n (SM 4500) ulfide (Hach) rip Blank Lot 125AGBh 500AGB	ne day of sampling courier Check Tesent N/A Check Tesent N/A Check Yes No relinquished time No relinquished time No relinquished time Trip Blank Lot Number: 1 125AGBh 125AGBp 500AGB 500AGJ 56	courier Checked by:

 $s = H_2SO_4$, u = ultra-pure, $znna = Zn(CH_3CO_2)_2 + NaOH$

Reviewed by: 136



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-68354-1

Client Project/Site: LRTC 2014-2015 Annual StormWaterSampling

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Mint R 5 Smit

Authorized for release by: 11/12/2015 12:09:23 PM

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Weiss Associates TestAmerica Job ID: 720-68354-1

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

Toxicity Equivalent Quotient (Dioxin)

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

TEQ

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Pleasanton

11/12/2015

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Case Narrative

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Job ID: 720-68354-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-68354-1

Comments

No additional comments.

Receipt

The samples were received on 11/2/2015 6:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: TS2-E-2015-1 (720-68354-1), FD-2015-1 (720-68354-2) and SW-11-2015-1 (720-68354-3). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

Method(s) 1664A: Elevated reporting limits are provided for the following samples due to insufficient sample provided for 1664A preparation/analysis: TS2-E-2015-1 (720-68354-1) and FD-2015-1 (720-68354-2).

Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-292731 and analytical batch 440-292819. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Client Sample ID: TS2-E-2015-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0071	0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.092	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0043	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0012 B	0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.091	0.0070	0.0019	mg/L	1		200.8	Total/NA
Total Suspended Solids	4.8	1.3	0.63	mg/L	1		SM 2540D	Total/NA
Analyte	Result Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	8.00	0.100	0.100	SU	1	_	9040B	Total/NA

Client Sample ID: FD-2015-1

Lab Sample ID: 720-68354-2

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	O Method	Prep Type
Copper	0.0064	0.0020	0.00060	mg/L		200.8	Total/NA
Iron	0.077	0.040	0.0058	mg/L	1	200.8	Total/NA
Nickel	0.0042	0.0030	0.00040	mg/L	1	200.8	Total/NA
Lead	0.0011 B	0.00040	0.000034	mg/L	1	200.8	Total/NA
Zinc	0.092	0.0070	0.0019	mg/L	1	200.8	Total/NA
Total Suspended Solids	4.8	1.3	0.63	mg/L	1	SM 2540D	Total/NA
Analyte	Result Qualifier	RL	RL	Unit	Dil Fac	O Method	Prep Type
pH	8.01	0.100	0.100	SU		9040B	Total/NA

Client Sample ID: SW-11-2015-1

Lab Sample ID: 720-68354-3

Analyte	Result Qualifi	er RL	MDL	Unit	Dil Fac	D N	Method	Prep Type
Copper	0.0031	0.0020	0.00060	mg/L		_ 2	200.8	Total/NA
Iron	0.32	0.040	0.0058	mg/L	1	2	200.8	Total/NA
Nickel	0.0045	0.0030	0.00040	mg/L	1	2	200.8	Total/NA
Lead	0.0016 B	0.00040	0.000034	mg/L	1	2	200.8	Total/NA
Zinc	0.14	0.0070	0.0019	mg/L	1	2	200.8	Total/NA
Total Suspended Solids	7.5	1.7	0.83	mg/L	1	S	SM 2540D	Total/NA
Analyte	Result Qualifi	er RL	RL	Unit	Dil Fac	D N	Method	Prep Type
pH	8.10	0.100	0.100	SU		_ 9	9040B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-68354-1

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

Client Sample ID: TS2-E-2015-1

Lab Sample ID: 720-68354-1 Date Collected: 11/02/15 08:10

Matrix: Water

Date Received: 11/02/15 18:15

Method: 200.8 - Metals (ICP/I	MS)							
Analyte	Result Qua	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10	0.10	0.10	mg/L		11/04/15 19:41	11/05/15 15:16	1
Copper	0.0071	0.0020	0.00060	mg/L		11/04/15 19:41	11/05/15 15:16	1
Iron	0.092	0.040	0.0058	mg/L		11/04/15 19:41	11/05/15 15:16	1
Nickel	0.0043	0.0030	0.00040	mg/L		11/04/15 19:41	11/05/15 15:16	1
Lead	0.0012 B	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 15:16	1
Zinc	0.091	0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 15:16	1
- General Chemistry								
Analyte	Result Qua	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.6	5.8	1.6	mg/L		11/10/15 08:14	11/10/15 13:24	1
Total Suspended Solids	4.8	1.3	0.63	mg/L			11/04/15 20:30	1
Analyte	Result Qua	lifier RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.00	0.100	0.100	SU			11/02/15 19:20	1

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Client Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-68354-1

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

Client Sample ID: FD-2015-1 Lab Sample ID: 720-68354-2

Date Collected: 11/02/15 08:15 **Matrix: Water** Date Received: 11/02/15 18:15

Method: 200.8 - Metals (ICP) Analyte	(MS) Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum		<u> </u>	0.10		mg/L		11/04/15 19:41	11/05/15 15:21	1
Copper	0.0064		0.0020	0.00060	J		11/04/15 19:41	11/05/15 15:21	1
Iron	0.077		0.040	0.0058	J		11/04/15 19:41	11/05/15 15:21	1
Nickel	0.0042		0.0030	0.00040			11/04/15 19:41	11/05/15 15:21	1
Lead	0.0011 I	В	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 15:21	1
Zinc	0.092		0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 15:21	1
General Chemistry									
Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.6		5.8	1.6	mg/L		11/10/15 08:14	11/10/15 13:24	1
Total Suspended Solids	4.8		1.3	0.63	mg/L			11/04/15 20:30	1
Analyte	Result (Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.01		0.100	0.100	SU			11/02/15 19:22	1

Client Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-68354-1

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

Client Sample ID: SW-11-2015-1

Lab Sample ID: 720-68354-3 Date Collected: 11/02/15 10:03 **Matrix: Water**

Date Received: 11/02/15 18:15

Method: 200.8 - Metals (ICP/MS) Analyte	Rosult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10	Qualifier	0.10		mg/L		11/04/15 19:41	11/05/15 15:25	1
Copper	0.0031		0.0020	0.00060	U		11/04/15 19:41	11/05/15 15:25	1
Iron	0.32		0.040	0.0058	U		11/04/15 19:41	11/05/15 15:25	1
Nickel	0.0045		0.0030	0.00040	mg/L		11/04/15 19:41	11/05/15 15:25	1
Lead	0.0016	В	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 15:25	1
Zinc	0.14		0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 15:25	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.5		5.2	1.5	mg/L		11/10/15 08:14	11/10/15 13:24	1
Total Suspended Solids	7.5		1.7	0.83	mg/L			11/04/15 20:30	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.10		0.100	0.100	SU			11/02/15 19:24	1

Client: Weiss Associates TestAmerica Job ID: 720-68354-1

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-204935/10-A **Matrix: Water**

Analysis Batch: 205036

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 204935

	MR	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		11/04/15 19:41	11/05/15 16:11	1
Copper	<0.00060		0.0020	0.00060	mg/L		11/04/15 19:41	11/05/15 16:11	1
Iron	<0.0058		0.040	0.0058	mg/L		11/04/15 19:41	11/05/15 16:11	1
Nickel	<0.00040		0.0030	0.00040	mg/L		11/04/15 19:41	11/05/15 16:11	1
Lead	0.0000426	J	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 16:11	1
Zinc	<0.0019		0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 16:11	1

Lab Sample ID: LCS 580-204935/11-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Prep Batch: 204935

Analysis Batch: 205036

7 man y 0.0 2 and 11 2 0 0 0 0	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	1.00	1.01		mg/L		101	85 - 115	
Copper	0.100	0.101		mg/L		101	85 - 115	
Iron	10.0	10.6		mg/L		106	85 ₋ 115	
Nickel	0.100	0.100		mg/L		100	85 - 115	
Lead	0.100	0.108		mg/L		108	85 - 115	
Zinc	0.100	0.0997		mg/L		100	85 - 115	

Lab Sample ID: LCSD 580-204935/12-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 205036** Prep Batch: 204935

Spike LCSD LCSD %Rec. **RPD** Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Aluminum 1.00 1.01 mg/L 85 - 115 20 101 Copper 0.100 0.102 mg/L 102 85 - 115 20 Iron 10.0 10.5 mg/L 105 85 - 115 20 n Nickel 0.100 0.101 mg/L 101 85 - 115 20 Lead 0.100 0.108 85 - 115 20 mg/L 108 0 Zinc 0.100 0.100 mg/L 100 85 - 115 20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-292731/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 292819** Prep Batch: 292731

MB MB

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac SGT-HEM 5.0 <u>11/10/15 08:14</u> <u>11/10/15 13:24</u> <1.4 1.4 mg/L

Lab Sample ID: LCS 440-292731/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 292819 **Prep Batch: 292731** Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits SGT-HEM 20.0 mg/L 81 64 - 132 16.1

TestAmerica Pleasanton

11/12/2015

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-292731/3-A

Matrix: Water

Analysis Batch: 292819

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 292731

Prep Type: Total/NA

Spike LCSD LCSD %Rec. **RPD** Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 20.0 64 - 132 SGT-HEM 16.0 mg/L 80 28

Method: 9040B - pH

Lab Sample ID: LCS 720-191866/1

Matrix: Water

pH

Analysis Batch: 191866

Analyte

Spike Added 7.00

LCS LCS Result Qualifier 7.010

Unit SU

D %Rec 100

%Rec. Limits 99 - 101

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-291661/1

Lab Sample ID: LCS 440-291661/2

Matrix: Water

Analysis Batch: 291661

MB MB

Analyte

Total Suspended Solids

Result Qualifier <0.50

RL 1.0

MDL Unit 0.50 mg/L

Prepared

Analyzed Dil Fac 11/04/15 20:30

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 291661

Analyte

Total Suspended Solids

Spike Added

1000

LCS LCS Result Qualifier 974

Unit mg/L

%Rec 97 %Rec. Limits

85 - 115

TestAmerica Pleasanton

11/12/2015

QC Association Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Metals

Prep Batch: 204935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	200.8	
720-68354-2	FD-2015-1	Total/NA	Water	200.8	
720-68354-3	SW-11-2015-1	Total/NA	Water	200.8	
LCS 580-204935/11-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-204935/12-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-204935/10-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 205036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	200.8	204935
720-68354-2	FD-2015-1	Total/NA	Water	200.8	204935
720-68354-3	SW-11-2015-1	Total/NA	Water	200.8	204935
LCS 580-204935/11-A	Lab Control Sample	Total/NA	Water	200.8	204935
LCSD 580-204935/12-A	Lab Control Sample Dup	Total/NA	Water	200.8	204935
MB 580-204935/10-A	Method Blank	Total/NA	Water	200.8	204935

General Chemistry

Analysis Batch: 191866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	9040B	
720-68354-2	FD-2015-1	Total/NA	Water	9040B	
720-68354-3	SW-11-2015-1	Total/NA	Water	9040B	
LCS 720-191866/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 291661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	SM 2540D	
720-68354-2	FD-2015-1	Total/NA	Water	SM 2540D	
720-68354-3	SW-11-2015-1	Total/NA	Water	SM 2540D	
LCS 440-291661/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-291661/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 292731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	1664A	
720-68354-2	FD-2015-1	Total/NA	Water	1664A	
720-68354-3	SW-11-2015-1	Total/NA	Water	1664A	
LCS 440-292731/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-292731/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-292731/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 292819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68354-1	TS2-E-2015-1	Total/NA	Water	1664A	292731
720-68354-2	FD-2015-1	Total/NA	Water	1664A	292731
720-68354-3	SW-11-2015-1	Total/NA	Water	1664A	292731
LCS 440-292731/2-A	Lab Control Sample	Total/NA	Water	1664A	292731
LCSD 440-292731/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	292731
MB 440-292731/1-A	Method Blank	Total/NA	Water	1664A	292731

TestAmerica Pleasanton

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Lab Chronicle

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Client Sample ID: TS2-E-2015-1

Date Collected: 11/02/15 08:10 Date Received: 11/02/15 18:15 Lab Sample ID: 720-68354-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			204935	11/04/15 19:41	PAB	TAL SEA
Total/NA	Analysis	200.8		1	205036	11/05/15 15:16	FCW	TAL SEA
Total/NA	Prep	1664A			292731	11/10/15 08:14	L1A	TAL IRV
Total/NA	Analysis	1664A		1	292819	11/10/15 13:24	L1A	TAL IRV
Total/NA	Analysis	9040B		1	191866	11/02/15 19:20	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	291661	11/04/15 20:30	MMH	TAL IRV

Client Sample ID: FD-2015-1

Date Collected: 11/02/15 08:15

Date Received: 11/02/15 18:15

Lab Sample ID: 720-68354-2

Lab Sample ID: 720-68354-3

Matrix: Water

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			204935	11/04/15 19:41	PAB	TAL SEA
Total/NA	Analysis	200.8		1	205036	11/05/15 15:21	FCW	TAL SEA
Total/NA	Prep	1664A			292731	11/10/15 08:14	L1A	TAL IRV
Total/NA	Analysis	1664A		1	292819	11/10/15 13:24	L1A	TAL IRV
Total/NA	Analysis	9040B		1	191866	11/02/15 19:22	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	291661	11/04/15 20:30	MMH	TAL IRV

Client Sample ID: SW-11-2015-1

Date Collected: 11/02/15 10:03

Date Received: 11/02/15 18:15

D T	Batch	Batch	D	Dilution	Batch	Prepared	A	1 -1-
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			204935	11/04/15 19:41	PAB	TAL SEA
Total/NA	Analysis	200.8		1	205036	11/05/15 15:25	FCW	TAL SEA
Total/NA	Prep	1664A			292731	11/10/15 08:14	L1A	TAL IRV
Total/NA	Analysis	1664A		1	292819	11/10/15 13:24	L1A	TAL IRV
Total/NA	Analysis	9040B		1	191866	11/02/15 19:24	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	291661	11/04/15 20:30	MMH	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

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Certification Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Prog	gram	EPA Region	Certification ID	Expiration D 01-31-16
Analysis Method	Prep Method	Matrix	Ana	lyte	

Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Pro		EPA Region	Certification ID	Expiration Date 06-30-16
		9	-		
The following analytes	s are included in this repo	rt, but certification is r	not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
1664A	1664A	Water	SGT-H	HEM	

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

Method Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL IRV
9040B	рН	SW846	TAL PLS
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual StormWaterSampling

TestAmerica Job ID: 720-68354-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-68354-1	TS2-E-2015-1	Water	11/02/15 08:10	11/02/15 18:15
720-68354-2	FD-2015-1	Water	11/02/15 08:15	11/02/15 18:15
720-68354-3	SW-11-2015-1	Water	11/02/15 10:03	11/02/15 18:15

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	Mamples released to a secured, locked area.	Remanished by Company:	(hilbr)		Special Instructions/OC Requirements & Comments: Level II Report, Repo	To act of the first of the first of the second of the first of the fir	5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -							SW-11-2015-1 11	FD-2015-1 11	TS2-E-2015-1 11	Nab 10 Sample Identification Sa	Address: 402 Wright Avenue, Richmond, CA 94804	Job Name: LRT 2014-2015 Annual Storm Water Sampling	(510) 547-5043 FAX	(510) 450-6000 Phone	Emeryville, CA 94608 Sampl	2200 Yowell Street, Snite 925 Sampled by:	Weiss Associates Project ID:	Client Contact	Phone: 925-484-1919 ext.137 sab@v			Chain of Custody Record		
		Company:	Company S S		II Report, Repo				=	 		===		11/2/2015	11/2/2015	11/2/2015	Sample Date	(Speci	- -		Analysis T	Sample date(s): 11	_	_	= !; i=	sab@weiss.com	labresults@weiss.com	Please send analytic results, electronic deliverables and the original chain-of-custody form to:	-		
		Date/I	Date/In	,	rt with reporti	o. 1966 14 14 1866 14								1003 W	0815 W	0810 W	Time Matrix	⊢ Ho	Standard	,	Analysis Turnaround Time:	11/2/2015	Brian Bandy	426-2026.01 Task 1.1.3	Scott Bourne			ults, electronic de y form to:		•	
	10/1/2	3.53.5	15 1300	(ng limit and me	(f.k.) no count rings and								5	V 5	V 5	Matrix # of Cont.				Time:			1.1.3				liverables and the		7	
	•= Sm	Received by:	Received by.		Level II Report, Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Ph, and Zu).	4								XX	XX	ХХ	pII(nalyic EPA 90 1 Suspe)40B))			40D))	Protocel ID/path: J:	Call immediatel	Specify analytic				
	= Samples received from a secured, locked area	Ž	五 2 2		mit. Analyze and									XX	XX	XX	Tota	& Greas	s- Al,	Cu, I				M)	J:\Levin Richmond\03b_Sampling	Notity us of any anomalous peaks in GC or other scans. Call immediately with any questions or problems.	Specify analytic/prep method and detection lumi in report.	Geo Fracker EDN Fequired: Equis 4-file EDWEDD required?	PE		
	asecured, locked as		J.M.	,	d report only th	+		720-																	Sampling	s or problems.	etection lunut in rep	I Yes ⊠	l		
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·			, v		ı, Fe, Ni, Pb, an	_	-																	1	!	164	•		Ē		
•	1/12	TO THE STATE OF TH	Date/Times-15		ıd Zn).												Sample Specific Notes:			Sincannier:		Page (COC Number:	+1/1			1/		
	18/5	から	3:3/										100	of 2			cific Notes:					of f	No.		unber:				1/1:	0/004	

1

Chain of Custody Record

Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

TestAmerica Pleasanton

1220 Quarry Lane

Client Information (Sub Contract Lab)	oarripler:		Smith, N	ficah		Califer Tracking No(s);	. NO(8):	720-26423.1	
Client Contact: Shipping/Receiving	Phone:		E-Mail: micah s	nith@tes	E-Mail: micah smith@testamericainc.com	Γ		Page: Page 1 of 1	
Company:			-		A section A			Job #:	
l estAmerica Laboratories, Inc					Analysis Keduested	ednested		720-68354-1	
30,	Due Date Requested: 11/9/2015					-		Preservation Codes:	odes: M - Hevane
	TAT Requested (days):							B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: CA, 92614-5817								6.00	P - Na2O4S Q - Na2SO3 B - Na2S2SO3
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:		(0					G - Amchlor H - Ascorbic Acid	
Email:	WO#:		N 10 s	(on					
Project Name: LRTC Stormwater	Project #: 72009078		iөД) өј	10 59	γίηΟ Τι			rtaine L-EDA	w - pn 4-5 Z - other (specify)
Site:	SSOW#:		qms2	k) dsi	M se			S Other: රී	
Sample Identification - Client ID (Lab ID)	Sample Date Time	Sample Type (C≃comp, G≔grab)	Matrix ere (wewater, it S=solid, O=waste/oil, ere HT=Tiesue, A=Air)	Pertorm MSIN	q_A4991\A4991			Total Number Special	Special Instructions/Note:
	X	Preservation Code:	ode:	X					
TS2-E-2015-1 (720-68354-1)	11/2/15 08:10		Water	×	×			m	
FD-2015-1 (720-68354-2)	11/2/15 08:15 Pacific		Water	×	×			3	
SW-11-2015-1 (720-68354-3)	11/2/15 10:03		Water	×	×			3	
							-		
Possible Hazard Identification				Sample I	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	e assessed if san Disposal Bullah	umples are rei	stained longer than	1 month)
المالية المال				Special In	Special Instructions/QC Requirements:	nents:		io constitution	STATION
Empty Kit Relinquisherby:	Date:		Time:	1		Method of Shipmen	Shipment Fel	16518 827	6 7204
Relinquished by: $egin{pmatrix} \mathcal{M} \mathcal{M} \end{pmatrix}$	Date/Time/3/15	346 Company	A Park	Receiv	Received by:		Date/Time/	46 31	I Knewwood S
Relinquished by:	Date/Time:	Compan	Á ui	Received by	red by:		Date/Time: 1		Company
Relinquished by:	Date/Time:	Company	иу	Receiv	Received by:		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:				Cooler	Cooler Temperature(s) °C and Other Remarks.	Remarks:	29/2.0	0 X36	
							,		

Chain of Custody Record

Custody Seal No.: A Yes A No	Relinquished by:	Relinquished by:	Kelinquisned by:	Empty Kit Relinquished by:	Deliverable Requested: I, II, III, IV, Other (specify)	Unconfirmed	Possible Hazard Identification						SW-11-2015-1 (720-68354-3)	FD-2015-1 (720-68354-2)	TS2-E-2015-1 (720-68354-1)	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Sample Identification - Client ID (Lab ID)	Site:	Project Name: LRTC Stormwater	- 1	Phone: 253-922-2310(Tel) 253-922-5047(Fax)	State, Zip: WA, 98424	City: Tacoma	Address: 5755 8th Street East,	Company: TestAmerica Laboratories, Inc.		Client Information (Sub Contract Lab)	Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002	TestAmerica Pleasanton
	Date/Time:	Date/I/me:	11/3/15										11/2/15	11/2/15	11/2/15		Sample Date	SSOW#:	Project #: 72009078	#O#	PO#		TAT Requested (days):	Due Date Requested: 11/9/2015		Phone:	Sampler:		
			1330	Date:	i								10:03 Pacific	08:15 Pacific	08:10 Pacific	7	Sample Time						days):	sted:					Chain of Custody Record
	0	- C		10	j											Preservation Code:	Sample Type (C=comp, G=grab)					 						9	of Cust
	Company	Company	X										Water	Water	Water				3. 07.		1					E-Mail: micah	Smith,		odv Re
Cooler	Received by:	Regelved by:	7		opecial in	Ret	Sample Disposal						×	×	×	X	Field Filtered Perform MS/I 200.8_CWA/20 200.8	VISD (es or	No)	\$ (C.)			by		E-Mail: micah.smith@testamerical	Smith, Micah		cord.
Cooler Temperature(s) °C	ed by:	ya by:		d.	Special Instructions/QC Requirements	Return To Client										A An i		····						·	≥	americainc.com			
°C and Other Remarks:			NAW W	•	C Requirem	3	(A fee may be																		Analysis R	om			
Remarks:			7	Meth	ł	Disposal By Lab	assessed																		Requested		Carrier Tra		
22	Date/Time:	Date/ I II le.	11/4	Method of Snipment		y Lab	if samples																				Carrier Tracking No(s):		
2	le:	Ţ	4/15	ָהָּר		Archi	are retaine	. : . :	·		= -	2 2.0	 Á	<u>ا</u>	رخسي	X	Total Numbe	rotco	ntaline	rs									
1/1·0			K: 80			Archive For	d longer th										Speci	Other:	L - EDA	1 - Ice J - DI Water K - EDTA	G - Amchlor H - Ascorbic Acid	D - Nitric Acid E - NaHSO4 F - MeOH	B - NaOH C - Zn Acetate	Preservation Codes: A - HCL M	720-68354-1	Page 1 of 1	720-26422.1	ESCV37 3HL	Ö'
	Company	Company	4	Company		Months	may be assessed if samples are retained longer than 1 month)										Special Instructions/Note:		Z - othe	U - Acetone V - MCAA W - nh 4-5	ď.			8				MYOEMARS "	B
	ny	l l	TSEA	JV		ths										100	ກາs/Note:		Z - other (specify)	AA AA	S - H2SO4 T - TSP Dodecahydrate	204S 2S03 2S2S03	ie . laO2	ane				ONIEST WESSHOOMKERN SELVO	lestAmerica

Login Number: 68354 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

oreator. Bullock, Tracy		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Irvine
List Number: 2
List Creation: 11/04/15 03:01 PM

Creator: Garcia, Veronica G

Creator: Garcia, veronica G		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Seattle
List Number: 3
List Creation: 11/04/15 04:59 PM

Creator: Vance, Diane R

Creator: Vance, Diane R		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Seattle
List Number: 4
List Creation: 11/04/15 05:00 PM

Creator: Vance, Diane R

Creator. Valice, Dialie K		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-68356-1 Client Project/Site: LRTC Stormwater

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Authorized for release by: 11/12/2015 12:26:25 PM

Micah Smith, Project Manager II (925)484-1919

Minch RJ Somo

micah.smith@testamericainc.com

LINKS

Review your project results through Total Access

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

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Definitions/Glossary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

TEQ

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

TestAmerica Pleasanton

11/12/2015

Page 3 of 19

Case Narrative

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Job ID: 720-68356-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-68356-1

Comments

No additional comments.

Receipt

The sample was received on 11/2/2015 6:15 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Weiss Associates Project/Site: LRTC Stormwater

Client Sample ID: TS2-I-2015-1

TestAmerica Job ID: 720-68356-1

Lab Sample ID: 720-68356-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac D	Method	Prep Type
Aluminum	1.9	0.10	0.10	mg/L		200.8	Total/NA
Copper	0.026	0.0020	0.00060	mg/L	1	200.8	Total/NA
Iron	3.1	0.040	0.0058	mg/L	1	200.8	Total/NA
Nickel	0.011	0.0030	0.00040	mg/L	1	200.8	Total/NA
Lead	0.076 B	0.00040	0.000034	mg/L	1	200.8	Total/NA
Zinc	0.57	0.0070	0.0019	mg/L	1	200.8	Total/NA
Total Suspended Solids	240	20	10	mg/L	1	SM 2540D	Total/NA

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Client Sample Results

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Client Sample ID: TS2-I-2015-1

Date Collected: 11/02/15 09:30 Date Received: 11/02/15 18:15

Lab Sample ID: 720-68356-1

Matrix: Water

Method: 200.8 - Metals (ICP/	MS)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.9	0.10	0.10	mg/L		11/04/15 19:41	11/05/15 15:30	1
Copper	0.026	0.0020	0.00060	mg/L		11/04/15 19:41	11/05/15 15:30	1
Iron	3.1	0.040	0.0058	mg/L		11/04/15 19:41	11/05/15 15:30	1
Nickel	0.011	0.0030	0.00040	mg/L		11/04/15 19:41	11/05/15 15:30	1
Lead	0.076 B	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 15:30	1
Zinc	0.57	0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 15:30	1
General Chemistry								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	240	20	10	mg/L			11/04/15 20:30	1

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-204935/10-A

Matrix: Water

Analysis Batch: 205036

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 204935

	MR	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		11/04/15 19:41	11/05/15 16:11	1
Copper	<0.00060		0.0020	0.00060	mg/L		11/04/15 19:41	11/05/15 16:11	1
Iron	<0.0058		0.040	0.0058	mg/L		11/04/15 19:41	11/05/15 16:11	1
Nickel	<0.00040		0.0030	0.00040	mg/L		11/04/15 19:41	11/05/15 16:11	1
Lead	0.0000426	J	0.00040	0.000034	mg/L		11/04/15 19:41	11/05/15 16:11	1
Zinc	<0.0019		0.0070	0.0019	mg/L		11/04/15 19:41	11/05/15 16:11	1

Lab Sample ID: LCS 580-204935/11-A **Client Sample ID: Lab Control Sample Prep Type: Total/NA Matrix: Water**

Analysis Batch: 205036						Prep Batch: 204935	
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aluminum	1.00	1.01		mg/L		101	85 - 115
Copper	0.100	0.101		mg/L		101	85 ₋ 115
Iron	10.0	10.6		mg/L		106	85 ₋ 115
Nickel	0.100	0.100		mg/L		100	85 ₋ 115
Lead	0.100	0.108		mg/L		108	85 ₋ 115
Zinc	0.100	0.0997		mg/L		100	85 - 115

Lab Sample ID: LCSD 580-204935/12-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA **Prep Batch: 204935** Analysis Batch: 205036

7 maryolo Batom 200000							op Bu		-1000
•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	1.00	1.01		mg/L		101	85 - 115	1	20
Copper	0.100	0.102		mg/L		102	85 - 115	1	20
Iron	10.0	10.5		mg/L		105	85 - 115	0	20
Nickel	0.100	0.101		mg/L		101	85 - 115	1	20
Lead	0.100	0.108		mg/L		108	85 - 115	0	20
Zinc	0.100	0.100		mg/L		100	85 - 115	0	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-291661/1 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 291661

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<0.50		1.0	0.50	mg/L			11/04/15 20:30	1

Lab Sample ID: LCS 440-291661/2 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA**

Analysis Batch: 291661

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Suspended Solids	1000	974	-	mg/L		97	85 - 115	

QC Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-68356-1
Project/Site: LRTC Stormwater

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 720-68356-1 DU

Matrix: Water

Client Sample ID: TS2-I-2015-1

Prep Type: Total/NA

Analysis Batch: 291661

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QC Association Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Metals

Prep Batch: 204935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68356-1	TS2-I-2015-1	Total/NA	Water	200.8	
LCS 580-204935/11-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-204935/12-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-204935/10-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 205036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68356-1	TS2-I-2015-1	Total/NA	Water	200.8	204935
LCS 580-204935/11-A	Lab Control Sample	Total/NA	Water	200.8	204935
LCSD 580-204935/12-A	Lab Control Sample Dup	Total/NA	Water	200.8	204935
MB 580-204935/10-A	Method Blank	Total/NA	Water	200.8	204935

General Chemistry

Analysis Batch: 291661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68356-1	TS2-I-2015-1	Total/NA	Water	SM 2540D	
720-68356-1 DU	TS2-I-2015-1	Total/NA	Water	SM 2540D	
LCS 440-291661/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-291661/1	Method Blank	Total/NA	Water	SM 2540D	

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Lab Chronicle

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Lab Sample ID: 720-68356-1

Matrix: Water

Client Sample ID: TS2-I-2015-1 Date Collected: 11/02/15 09:30

Date Received: 11/02/15 18:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			204935	11/04/15 19:41	PAB	TAL SEA
Total/NA	Analysis	200.8		1	205036	11/05/15 15:30	FCW	TAL SEA
Total/NA	Analysis	SM 2540D		1	291661	11/04/15 20:30	MMH	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Certification Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Laboratory: TestAmerica Pleasanton

The certifications listed below are applicable to this report.

1	Authority	Program	EPA Region	Certification ID	Expiration Date
(California	State Program	9	2496	01-31-16

Laboratory: TestAmerica Irvine

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2706	06-30-16

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

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Method Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68356-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-68356-1	TS2-I-2015-1	Water	11/02/15 09:30	11/02/15 18:15

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(Samples fylasgh to a secured hocked area.	Religiquisigá bý	Relinquished by Bland	Reinquished by Jr. Long)	Special Instructions/OC Requirements & Comments:	Preservation Used: 1=Ice, 2=HCl; 3=H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6=Other									TS2-I-2015-1	Sample Identification	Address: Levin Richmond Terminal. 402 Wright Avenue, Richmond, CA 94804	Job Name: LRT 2014-2015 Armuel Storm Water Sampling	(510) 547-5043 FAX	(510) 450-6000 Phone	Emeryville, CA 94608	2200 Powell Street, Suite 925	Weiss Associates	- 1	Phone: 925-484-1919 ext.137	1220 Quarry Lane Pleasanter CA 04566	TestAmerica	Chain of Custody Record	:
irea.	Company	Company Cis	Company: WE151		Level II Report. R	INO3; 5=NaOH; 6= Ot			 						11/2/2015	Sample Date	(S			Analys	Sample date(s):	Sampled by:	Project ID:	Project Manager:	sab@weiss.com	habresults@weiss.com	Please send analytic results, electronignal chain-of-custody form to:		_
*	Date	Date/I	Date/Ti		eport with reportin	her									0930 W	Sample Sample Time Matrix	(Specify Days or Hours)	Standard		Analysis Turnaround Time:	_	B. BANGT	426-2026.01 Task 1.1.3	Scott Bourne		3	Please send analytic results, electronic deliverables and the original chain-of-custody form to:		
•	Tall 18 Received by	ne: 3:50 Recorded to	ne. Received by		Level II Report. Report with reporting limit and method detection limit. Analyze and	1	med miered (X)			17/2					2 ×	# of Cont.		- Al,	thod Cu, I	JD.		<u> </u>		Protocol ID/path:	Call um	Specify			
- Samples receive	THE	71	7ED, 78			1 1,2 1,4 1		:							×	Total	Suspe	nded	Solic	ls (S	M 2:	540D	")	J \Levin Richmon	Call immediately with any questions	Specify analytic/prep method and detection limit in report. Notify us of any anomalous peaks in GC or other scens.	Geolfracker EDF required? Equis 4-file EDWEDD required?	PΕ	
d from a secured, locked area			towned	. 1	report only the metals	1 1 1 1										The state of the s			_		-			d\03b_Sampling	or problems.	ection limit in report	Xes E No		
^	Company	O Company	o Company Weiss		report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).	1 1 1 1 1 1		/20-68356 Chain of Custody																-					
	Date Time:	1.2-13 330	Date/fring -/5 3:32)		nd Zn).	,1		stody			age	14	of 1	9		Sample Specific Notes:			SDG man beet	A CONTRACTOR OF THE PROPERTY O	Page of			COC Number:			164772	11.	/1

TestAmerica Pleasanton

Chain of Custody Record

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

1220 Quarry Lane

		600-3002
		(925)
2	CA 94566	hone (925) 484-1919 Fax (925) 600-3002
	Pleasanton,	Phone (925)

	Sampler:	Lab PM:		Carrier Tracking No(s):	COCING
Client Information (Sub Contract Lab)		Sm	Smith, Micah		720-26423.1
Client Contact:	Phone:	E-Mail:	ili:		Page:
Shipping/Receiving		mic	micah.smith@testamericainc.com	,	Page 1 of 1
Company:					Job #:
TestAmerica Laboratories, Inc			Analysis Requested	uested	720-68356-1
	Due Date Requested:				Preservation Co
1740 / Derian Ave, Suite 100,	11/9/2015	:			A-HCL
City:	TAT Requested (days):				B - NaOH
Irvine					C - Zn Acetate
State, Zip:					D - Nitric Acid
CA, 92614-5817					E - NaHSO4
Phone:	PO#:				G - Amchlor
949-261-1022(Tel) 949-260-3297(Fax)			(0		H - Ascorbic Acid
Email:	WO#:				I-loe
			ON 60 9	SI	J - DI Water
Project Name:	Project #:		10,87	eu	A-EDIA
LRTC Stormwater	72009078		S9 9		7
Site:	SSOW#:		dines	63 40	Other:
		Sample Matrix	N _i CM		
		Type (W≃water,	ш		
	<u>, , , , , , , , , , , , , , , , , , , </u>		olis dop		
Sample Identification - Client ID (Lab ID)	Sample Date Time	G=grab) BT=Tissue, A=Air)	ld !∃	7	Special I
	\ /		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		

Special Instructions/Note:

Preservation Code:

Water

09:30 Pacific

11/2/15

M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2S2S03
R - Na2S2S03
S - 12SO4
T - TSP Dodecahydrate
U - Acetone
U - Acetone
W - ph 4-5
Z - other (specify)

		· ·			
Possible Hazard Identification		Sa	mple Disposal (A fee may be asses	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		-	Return To Client Dispo	Disposal By Lab Archive For Mo	Months
Deliverable Requested: I, II, III, IV, Other (specify)	-	ds	Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	/ Pate:	Time:		Method of Shipment: F.J.', 6 S18 8276 724	Con
Relinquished by:	175/2/12/12/13/13/13/13/13/13/13/13/13/13/13/13/13/	Company	Received by, SAN U	Date Time: 11/4/15 Company	14.7 14.7
Relinquished by	DayerTime	Company	Received by:	Date/fime: Company	ر د
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: Company	ر.
Custody Seals Intact: Custody Seal No::			Cooler Temperature(s) °C and Other Remark	Cooler Temperature(s) ${}^{\circ}$ C and Other Remark, ${}^{\circ}$ C) 2 , 4 // 5 3 , 7 6	

TS2-I-2015-1 (720-68356-1)

Tacoma State, Zip: WA, 98424

5755 8th Street East,

TAT Requested (days): Due Date Requested: 11/9/2015

B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid

M-Hexane
N-None
O-AsNaO2
P-Na2O4S
Q-Na2SO3
R-Na2SSO3
S-RSO4
T-1SP Dodecahydrate
U-Acetone
V-MCAA

I - Ice J - DI Water K - EDTA

L-EDA

W - ph 4-5 Z - other (specify)

estAmerica Laboratories, Inc.

253-922-2310(Tel)

253-922-5047(Fax)

Project Name: LRTC Stormwater

Project #: 72009078 SSOW#:

WO#

Sample Identification - Client ID (Lab ID)

Sample Date

Sample

(C=comp, G=grab)

Preservation Code: BT=Tissue, A=Air

Water

×

Sample Type

Matrix

Field Filtered Sample (Yes or No)

200.8_CWA/200.8_P_TOT (MOD) Al, Cu, Fe, Ni, Pb, Zn by

Perform MS/MSD (Yes or No)

Total Number of containers

11/2/15

Pacific 09:30

TS2-I-2015-1 (720-68356-1)

Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

Client Information (Sub Contract Lab)

Phone:

Sampler:

Lab PM: Smith, Micah

E-Mail:

micah.smith@testamericainc.com

Analysis Requested

Shipping/Receiving

1220 Quarry Lane

TestAmerica Pleasanton

Chain of Custody Record

Carrier Tracking No(s):

COC No: 720-26422.1

Page 1 of 1

Preservation Codes: 720-68356-1



THE I EADER IN ENVIRONMENTAL YESTING

Page 16 of 19

Special Instructions/Note:

Deliverable Requested: I, II, III, IV, Other (specify)

Relinquished by: 🔪 Relinquished by: mpty Kit Relinquishes

telinquished by:

Date/Time:

Company

Received by:

Date/Time: Date/Time

Company Company

Cooler Temperature(s) °C and Other Remarks:

N

7.4

i

l ime:

Received by:

Date/Ilme:

7:00

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S (T) 13 Special Instructions/QC Requirements

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mont

Months

Custody Seals Intact: ∆ Yes ∆ No

Custody Seal No.:

Possible Hazard Identification

Login Number: 68356 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Creator: Bullock, Tracy		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Irvine
List Number: 2
List Creation: 11/04/15 01:32 PM

Creator: Garcia, Veronica G

Creator: Garcia, Veronica G	A	0
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

List Source: TestAmerica Seattle
List Number: 3
List Creation: 11/04/15 05:00 PM

Creator: Vance, Diane R

Creator. Valice, Diane R		
Question	Answer	Comment
Radioactivity wasn't checked or is $<$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Calscience



WORK ORDER NUMBER: 15-12-0414

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2015-2016 Annual Storm Water

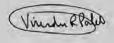
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 12/15/2015 by:

Virendra Patel Project Manager



ResultLink ▶

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task	1.1.3
0		

Work Order Number: 15-12-0414

1	Work Order Narrative	3
2	Sample Summary	4
3	QC Association Summary	5
4	Client Sample Data	6
5	Quality Control Sample Data. 5.1 LCS/LCSD.	12 12
6	Sample Analysis Summary	16
7	Glossary of Terms and Qualifiers	17
8	Chain-of-Custody/Sample Receipt Form	18



Work Order Narrative

Work Order: 15-12-0414 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/05/15. They were assigned to Work Order 15-12-0414.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925

Emeryville, CA 94608-1879

Work Order:

15-12-0414

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

PO Number:

Project Name:

Date/Time

12/05/15 09:20

Received:

Number of Containers: 4

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-E2015-2	15-12-0414-1	12/03/15 15:35	2	Aqueous
FD-2015-2	15-12-0414-2	12/03/15 15:40	2	Aqueous





QC Association Summary

Work Order: 15-1	2-0414				Page 1 o	of 1
Client Sample ID	Method Name	<u>Type</u> E	xt Name	Instrument	MS/MSD/SDP LCS	/LCSD
TS2-E2015-2	EPA 8081A Organochlorine Pesticides	E	PA 3510C	GC 44	1512	208L12
TS2-E2015-2	EPA 8081A Organochlorine Pesticides	E	PA 3510C	GC 44	1512	208L11
FD-2015-2	EPA 8081A Organochlorine Pesticides	E	PA 3510C	GC 44	1512	208L12
FD-2015-2	EPA 8081A Organochlorine Pesticides	E	PA 3510C	GC 44	1512	208L11



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

15-12-0414 EPA 3510C **EPA 8081A**

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ug/L

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Client Sample Number	Lab Sample	Date/Time	Matrix	Instrument	Date	Date/Time	QC Batch ID
	Number	Collected			Prepared	Analyzed	
TS2-E2015-2	15-12-0414-1-B	12/03/15 15:35	Aqueous	GC 44	12/08/15	12/09/15 12:16	151208L12
Comment(s): - Results were evalua	ated to the MDL (DL), cond	centrations >=	to the MDL (DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Gamma-BHC	ND		0.10	0.030	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Heptachlor	ND		0.10	0.026	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Aldrin	ND		0.10	0.027	1.00		
Heptachlor Epoxide	ND		0.10	0.025	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Dieldrin	ND		0.10	0.029	1.00		
4,4'-DDE	ND		0.10	0.027	1.00		
Endrin	ND		0.10	0.031	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
4,4'-DDD	ND		0.10	0.027	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
4,4'-DDT	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Toxaphene	ND		2.0	0.59	1.00		
Endrin Ketone	ND		0.10	0.024	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	Qualifiers			

RL: Reporting Limit.

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

DF: Dilution Factor.

75

69

MDL: Method Detection Limit.

50-135

50-135



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

2,4,5,6-Tetrachloro-m-Xylene

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FD-2015-2	15-12-0414-2-B	12/03/15 15:40	Aqueous	GC 44	12/08/15	12/09/15 12:30	151208L12
Comment(s): - Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Gamma-BHC	ND		0.10	0.030	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Heptachlor	ND		0.10	0.026	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Aldrin	ND		0.10	0.027	1.00		
Heptachlor Epoxide	ND		0.10	0.025	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Dieldrin	ND		0.10	0.029	1.00		
4,4'-DDE	ND		0.10	0.027	1.00		
Endrin	ND		0.10	0.031	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
4,4'-DDD	ND		0.10	0.027	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
4,4'-DDT	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Toxaphene	ND		2.0	0.59	1.00		
Endrin Ketone	ND		0.10	0.024	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	72		50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

74

50-135



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Chlordane

Toxaphene

Surrogate

Endrin Ketone

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

Date Received: Work Order: Preparation: Method:

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Units:

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ND

ND

ND

78

86

Rec. (%)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-529-857	N/A	Aqueous	GC 44	12/08/15	12/09/15 12:01	151208L12
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >=	to the MDL (DI	L) but < RL (LC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Gamma-BHC	ND		0.10	0.030	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Heptachlor	ND		0.10	0.026	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Aldrin	ND		0.10	0.027	1.00		
Heptachlor Epoxide	ND		0.10	0.025	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Dieldrin	ND		0.10	0.029	1.00		
4,4'-DDE	ND		0.10	0.027	1.00		
Endrin	ND		0.10	0.031	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
4,4'-DDD	ND		0.10	0.027	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
4,4'-DDT	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		

1.0

2.0

0.10

50-135 50-135

Control Limits

0.33

0.59

0.024

Qualifiers

1.00

1.00

1.00

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

Units:

15-12-0414 EPA 3510C EPA 8081A ng/L

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2026.01 Ta	ask 1.1.3
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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-E2015-2	15-12-0414-1-AB	12/03/15 15:35	Aqueous	GC 44	12/08/15	12/09/15 13:13	151208L11
Comment(s): - Results were evaluated t	o the MDL (DL), cond	centrations >= t	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u> .	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Q	<u>ualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
4,4'-DDMU	ND		2.0	1.0	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Cis-nonachlor	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Oxychlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Trans-nonachlor	ND		3.3	1.7	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	73		50-150				
2,4,5,6-Tetrachloro-m-Xylene	84		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

EPA 3510C EPA 8081A ng/L

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FD-2015-2	15-12-0414-2-AB	12/03/15 15:40	Aqueous	GC 44	12/08/15	12/09/15 13:27	151208L11
Comment(s): - Results were evaluated to	to the MDL (DL), cond	entrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
4,4'-DDMU	ND		2.0	1.0	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Cis-nonachlor	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Oxychlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Trans-nonachlor	ND		3.3	1.7	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	88		50-150				
2,4,5,6-Tetrachloro-m-Xylene	85		50-150				

RL: Reporting Limit.

DF: Dilution Factor.

MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

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Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-5	N/A	Aqueous	GC 44	12/08/15	12/09/15 12:59	151208L11
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >= 1	to the MDL (DL	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
4,4'-DDMU	ND		2.0	1.0	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Cis-nonachlor	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Oxychlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Trans-nonachlor	ND		3.3	1.7	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			

50-150

50-150

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

65

67





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

0.5000

0.3503

70

Quality Control Sample ID	Туре		Matrix	Instru	ument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-12-529-857	LCS		Aqueous	GC 4	4	12/08/15	12/09/1	5 16:08	151208L12	
099-12-529-857	LCSD		Aqueous	GC 4	4	12/08/15	12/09/1	5 16:22	151208L12	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.3257	65	0.3372	67	50-135	36-149	3	0-25	
Gamma-BHC	0.5000	0.3434	69	0.3426	69	50-135	36-149	0	0-25	
Beta-BHC	0.5000	0.3548	71	0.3191	64	50-135	36-149	11	0-25	
Heptachlor	0.5000	0.3520	70	0.3590	72	50-135	36-149	2	0-25	
Delta-BHC	0.5000	0.3589	72	0.3506	70	50-135	36-149	2	0-25	
Aldrin	0.5000	0.3612	72	0.3679	74	50-135	36-149	2	0-25	
Heptachlor Epoxide	0.5000	0.3682	74	0.3736	75	50-135	36-149	1	0-25	
Endosulfan I	0.5000	0.3632	73	0.3681	74	50-135	36-149	1	0-25	
Dieldrin	0.5000	0.3715	74	0.3814	76	50-135	36-149	3	0-25	
4,4'-DDE	0.5000	0.3858	77	0.3917	78	50-135	36-149	2	0-25	
Endrin	0.5000	0.2693	54	0.3042	61	50-135	36-149	12	0-25	
Endrin Aldehyde	0.5000	0.3551	71	0.3563	71	50-135	36-149	0	0-25	
4,4'-DDD	0.5000	0.3647	73	0.3721	74	50-135	36-149	2	0-25	
Endosulfan II	0.5000	0.3837	77	0.3876	78	50-135	36-149	1	0-25	
4,4'-DDT	0.5000	0.3732	75	0.3887	78	50-135	36-149	4	0-25	
Endosulfan Sulfate	0.5000	0.3380	68	0.3531	71	50-135	36-149	4	0-25	

0.3910

78

50-135

36-149

11

0-25

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

Methoxychlor

RPD: Relative Percent Difference. CL: Control Limits





LCS/LCSD - Surrogate

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

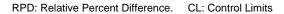
15-12-0414 EPA 3510C EPA 8081A

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Type		Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba	tch Number
099-12-529-857	LCS		Aqueous	GC 44	12/08/15	12/09/15 16:08	151208L12	
099-12-529-857	LCSD		Aqueous	GC 44	12/08/15	12/09/15 16:22	151208L12	
Parameter		Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	Qualifiers
Decachlorobiphenyl		0.01000	0.7710	77	0.7992	80	50-135	
2,4,5,6-Tetrachloro-m-Xylene		0.01000	0.7516	75	0.7811	78	50-135	







Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix		strument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-5	LCS		Aqueous	GC	C 44	12/08/15	12/09/1	5 16:37	151208L11	
099-16-704-5	LCSD		Aqueous	GC	C 44	12/08/15	12/09/1	5 16:51	151208L11	
<u>Parameter</u>	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Aldrin	33.35	24.04	72	24.05	72	50-150	33-167	0	0-25	
4,4'-DDD	33.35	24.99	75	24.85	75	50-150	33-167	1	0-25	
4,4'-DDE	33.35	25.84	77	25.73	77	50-150	33-167	0	0-25	
4,4'-DDT	33.35	26.12	78	26.01	78	50-150	33-167	0	0-25	
Alpha Chlordane	33.35	25.00	75	24.91	75	50-150	33-167	0	0-25	
Dieldrin	33.35	25.93	78	26.09	78	50-150	33-167	1	0-25	
Gamma Chlordane	33.35	24.55	74	24.48	73	50-150	33-167	0	0-25	
Endrin	33.35	21.61	65	21.22	64	50-150	33-167	2	0-25	
Gamma-BHC	33.35	23.66	71	23.77	71	50-150	33-167	0	0-25	
Heptachlor	33.35	24.55	74	24.60	74	50-150	33-167	0	0-25	
Heptachlor Epoxide	33.35	24.47	73	24.45	73	50-150	33-167	0	0-25	

Total number of LCS compounds: 11 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass



LCS/LCSD - Surrogate

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

15-12-0414 EPA 3510C EPA 8081A

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba	tch Number
099-16-704-5	LCS		Aqueous	GC 44	12/08/15	12/09/15 16:37	151208L11	
099-16-704-5	LCSD		Aqueous	GC 44	12/08/15	12/09/15 16:51	151208L11	
Parameter		Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	Qualifiers
Decachlorobiphenyl		66.70	74.56	75	74.02	74	50-150	
2,4,5,6-Tetrachloro-m-Xylene		66.70	75.25	75	76.51	77	50-150	





Sample Analysis Summary Report

Work Order: 15-12-0414				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 8081A	EPA 3510C	960	GC 44	1



Glossary of Terms and Qualifiers

Work Order: 15-12-0414 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The comple extract was subjected to Silica Gal treatment prior to analysis

- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

			D12-0414		COC Numbers			Page of		SDG number;			Sample Specific Notes:	SEE COMMENTS	SEE COMMENTS							west detection limits (standard 8081A and low-		DateTime.	Parg/Tythe. 0920	
INSTRUCTIONS FOR LAB PERSONNEL:	Ϋ́ς,	Equis 4-file EDWEDD required? XI Yet a No Specify analytic/prep method and detection limit in report.	Notify us of any anomalous peaks in GC or other scans.	inci) wi	Protocol ID/path: J:\Lcvin Richmond\03b_Sampling				(4	7180	8 Vd	E) səpp	Pesticie	x	x							Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-#5188 prepare using 0.5 Liter to 5 mL. 2、サーンの、 2、サーンの、 2、サーンので、 2、サーンので、 2、サーンので、 2、サーンので、 2、サーンので、 2、サーンので、 2、サーンので、 (カンサン・カロ、Aldrin, Alpha Chlordane, Dieldrin, Endrin, Endrin, Camma Chlordane, Gamma-BHC, Heptachlor, Epoxide and Toxaphene	Received by: Company:	maller.	0	 Samples received from a secured, locked area
-		e o	20			Task 1.1.3			in the second	poq		Hours)	Sample de Matrix # of Cont.	W 2	W 2					Field Filtered (X):		reporting limit and meth to 5 mL, sulfan I, Endosulfan II, En	Date/Time: Rec	1-1	150	1000
	Please send analytic results, electronic deliverables and the	original chain-of-custody form to: labresults@weiss.com	ajm@weiss.com		nager:	Project ID: 426-2026.01 Task 1.1.3	Sampled by: BPB/AJM	Sample date(s): 12/3/2015	Analysis Turnaround Time:		Standard	(Specify Days or Hours)	Sample Date Time	12/3/2015 (535	12/3/2015 1540						Os; 5-NaOH; 6- Other	Level II Report. Report with 5158 prepare using 0.5 Liter thlordane, Delta-BHC, Endos DT, Aldrin, Alpha Chlorda	Company:	Company:	Company	
Chain of Custody Record		CalSciene Environmental Lab or 5063 Commercial Circle, Suite H		7706-680-676	Client Contact	Weiss Associates P	2200 Powell Street, Suite 925	Emeryville, CA 94608	(510) 450-6000 Phone	(510) 547-5043 FAX	Job Name: LRT 2015-2016 Annual Storm Water Sampling	Address: 402 Wright Avenue, Richmond, CA 94804	Lab ID Sample Identification	(TS2-E-2015-2	2 FD-2015-2						Preservation Used: 1-Ice, 2-HCl; 3-H;SO,; 4-HNO,; 5-NaOH; 6-Other	Special Instructions/OC Requirements & Comments: Level II Report with reporting limit and method detection limit. Please use agreed upon analytical melevel 8081A for each sample). LIMITED SAMPLE TC#5158 prepare using 0.5 Liter to 5 mL. - Use ECI #TC 5158 - report Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan II, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor. - Use ECI #TC-6996 - report 4,4-DDD, 4,4-DDE, 4,4-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor	Relinguest Below () WW	Relipergation by My	Relinguistics of San TX (GCI)	ased to a secured, locked a



Chain of Custody Record					INSTRUCTIO	INSTRUCTIONS FOR LAB PERSONNEL:	ERSONNEL:					
	Please send analytic results, electronic deliverables and the	esults, electro	iic deliverab	les and the	GeoTracker F	GeoTracker EDF required?	_	×				
CalSciene Environmental Lab	original chain-of-custody form to:	ody form to:			Equis 4-file E	Equis 4-file EDWEDD required? Specify analytic/prep method and de	Equis 4-file EDWEDD required? X Yes ON Noneity analytic/prep method and detection limit in renort	n renort			(
Suos Commercia Circie, Suite n Concord, CA 94520 Phone: One con one	ablesuits@weiss.com ajm@weiss.com sah@weiss rom	an			Notify us of an Call immediate	y anomalous pea	opening analytic proprince and executed in its proposition of any anomalous peaks in GC or other scans. Call immediately with any questions or problems.	scans.		15-12-0414	12 -0	414
723-087-3022 Client Contact	Project Manager:	Scott Bourne		-	Protocol ID/path:	J:\Levin Ric	J:\Levin Richmond\03b_Sampling	60				COC Number:
	Project ID:	426-2026.01 Task 1.1.3	Fask 1.1.3									
2200 Powell Street, Suite 925	Sampled by:	BPB/AJM										
Emeryville, CA 94608	Sample date(s):	12/3/2015										Page of
(510) 450-6000 Phone	Analysis	Analysis Turnaround	nd Time:									
												SDG number:
Job Name: LRT 2015-2016 Annual Storm Water Sampling		Standard										
Address: 402 Wright Avenue, Richmond, CA 94804	ds)	(Specify Days or Hours)	(ours)		alyte des (F							
Lab ID Sample Identification	Sample Date	Sample Time	Sample Matrix	# of Cont.	An. Pestici							Sample Specific Notes:
TS2-E-2	12/3/2015	1535	W	2	Х						SE	SEE COMMENTS
Z FD-2015-2	12/3/2015	0451	×	2	×						SE	SEE COMMENTS
			Field 1	Field Filtered (X):								
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other	NO3; 5=NaOH; 6= Otl	ıer			1							
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-	Level II Report. 1	Report with	reporting li	mit and m	ethod detectio	ı limit. Pleası	use agreed up	oon analytica	methods for	lowest detection	limits (star	ndard 8081A and low-
level 8081A for each sample). LIMITED SAMPLE TC#5158 prepare using 0.5 Liter to 5 mL. - Use ECI #TC 5158 - report Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Endosulfan II, Endosulfan II, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor.	#5158 prepare usi Chlordane, Delta-F	ng 0.5 Liter sHC, Endos	o 5 mL. ilfan I, End	losulfan II,	Endosulfan S	ulfate, Endri	n Aldehyde an	d Methoxych	0r.			
- Use ECI #TC 6996 - report 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene	-DDT, Aldrin, Alpl	na Chlordan	e, Dieldrin,	Endrin, G	amma Chlord	ane, Gamma	BHC, Heptacl	ılor, Heptach	lor Epoxide ar	nd Toxaphene		
Relinguist de les	Company:		Date/Time:	000	Received by:			0	Company:		Date/	Date/Time:
Keliardisher by			Date/Time:	Т	Received by:	14			Company:		Date/T	,
will the	werss		12/4/15/1057	1	1000	nlly		0	53		3	14/16 1087
Assimption of Manager 10 Gel of	Company		Pate/Files	133	Received by:		2	0	Company:	7	[2] 	12/5/5 0920
X = Samples released to a secured, locked area.	rea.					= Samples rec	 Samples received from a secured, locked area 	ed, locked area				

Calscience

WORK ORDER NUMBER: 15-12- 04/4

SAMPLE RECEIPT CHECKLIST

COOLER / OF /	
---------------	--

CLIENT: Weiss	DATE:	12/05	/ 2015
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF):	ampling	ink 🏻 Samp	•
		hecked by: _	
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete Sampling date Sampling time Matrix Number of containers			N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested Samples received within holding time			
Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses			2
□ Volatile Organics □ Total Metals □ Dissolved Metals Container(s) for certain analysis free of headspace	0)		
Tedlar™ bag(s) free of condensation CONTAINER TYPE: (Trip Blank	Lot Number:		
Aqueous: □VOA □VOAh □VOAna₂ □100PJ □100PJna₂ □125AGB □125AGB □125AGB □125PBznna □250AGB □250CGB □250CGBs □250PB □250PBn □500AGB □500PB □1AGB □1AGBna₂ □1AGBs □1PB □1PBna □ □ □ □ □ Solid: □4ozCGJ □8ozCGJ □16ozCGJ □Sleeve (□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	☐ 500AGJ [□ 500AGJs □ □ □ □ □ □ □ □ □ □ □ □ □ □	1050



Calscience



WORK ORDER NUMBER: 15-12-0415

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2015-2016 Annual Storm Water

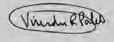
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 12/15/2015 by:

Virendra Patel Project Manager



ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Work Order Number: 15-12-0415

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5	Client Sample Data	7 7 8
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9	Chain-of-Custody/Sample Receipt Form	16



Work Order Narrative

Work Order: 15-12-0415 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/05/15. They were assigned to Work Order 15-12-0415.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order:

15-12-0415

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time 12/05/15 09:20

Received:

2 Number of

Containers:

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-I-2015-2	15-12-0415-1	12/03/15 15:15	2	Aqueous



QC Association Summary

Work Order: 15-12	2-0415				Page 1 of 1		
Client Sample ID	Method Name	<u>Type</u>	Ext Name	Instrument	MS/MSD/SDP LCS/LCSD		
TS2-I-2015-2	EPA 8081A Organochlorine Pesticides		EPA 3510C	GC 44	151208L12		
TS2-I-2015-2	EPA 8081A Organochlorine Pesticides		EPA 3510C	GC 44	151208L11		



Detections Summary

Client: Weiss Associates

2200 Powell Street, Suite 925

Emeryville, CA 94608-1879

Work Order: 15-12-0415

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

Received: 12/05/15

Attn: Scott Bourne Page 1 of 1

Client SampleID Analyte	Result	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	Extraction
TS2-I-2015-2 (15-12-0415-1)						
4,4'-DDE	7.5		1.3	ng/L	EPA 8081A	EPA 3510C
4,4'-DDT	22		1.3	ng/L	EPA 8081A	EPA 3510C

Subcontracted analyses, if any, are not included in this summary.



Weiss Associates Date Received: 12/05/15 2200 Powell Street, Suite 925 Work Order: 15-12-0415 EPA 3510C Emeryville, CA 94608-1879 Preparation:

> Method: **EPA 8081A** Units: ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2015-2	15-12-0415-1-B	12/03/15 15:15	Aqueous	GC 44	12/08/15	12/09/15 12:44	151208L12
Comment(s): - Results were evaluated	to the MDL (DL), con	centrations >=	to the MDL (DL	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	<u>Qualifiers</u>			
Decachlorobiphenyl	73		50-135				
2,4,5,6-Tetrachloro-m-Xylene	77		50-135				

Method Blank	099-12-529-857 N/A	Aqueous	GC 44	12/08/15	12/09/15 151208 12:01	L12
Comment(s): - Results were evaluated	to the MDL (DL), concentrations	>= to the MDL (DL) but < RL (LOC	Q), if found, are	qualified with a "J" flag.	
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Qualifiers	
Alpha-BHC	ND	0.10	0.028	1.00		
Beta-BHC	ND	0.10	0.030	1.00		
Delta-BHC	ND	0.10	0.029	1.00		
Endosulfan I	ND	0.10	0.028	1.00		
Endrin Aldehyde	ND	0.10	0.026	1.00		
Endosulfan II	ND	0.10	0.027	1.00		
Endosulfan Sulfate	ND	0.10	0.029	1.00		
Methoxychlor	ND	0.10	0.025	1.00		
Chlordane	ND	1.0	0.33	1.00		
Surrogate	<u>Rec. (%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	78	50-135				
2,4,5,6-Tetrachloro-m-Xylene	86	50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

15-12-0415 EPA 3510C EPA 8081A ng/L

12/05/15

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2015-2	15-12-0415-1-AB	12/03/15 15:15	Aqueous	GC 44	12/08/15	12/09/15 13:41	151208L11
Comment(s): - Results were evaluated t	to the MDL (DL), cond	entrations >=	to the MDL (DL	but < RL (LOC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resul	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	7.5		1.3	0.50	1.00		
4,4'-DDT	22		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	<u>Qualifiers</u>			
Decachlorobiphenyl	87		50-150				
2,4,5,6-Tetrachloro-m-Xylene	101		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

12/05/15

15-12-0415



Analytical Report

Weiss Associates Date Received: 2200 Powell Street, Suite 925 Work Order: Emeryville, CA 94608-1879

Preparation: EPA 3510C Method: **EPA 8081A** ng/L

Units:

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Page 2 of 2

2,4,5,6-Tetrachloro-m-Xylene

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-5	N/A	Aqueous	GC 44	12/08/15	12/09/15 12:59	151208L11
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >=	to the MDL (DL	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	65		50-150				

50-150

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

67





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

12/05/15 15-12-0415 EPA 3510C **EPA 8081A**

Page 1 of 4

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

0.5000

0.5000

0.5000

0.5000

0.5000

0.3647

0.3837

0.3732

0.3380

0.3503

73

77

75

68

70

Quality Control Sample ID	Type		Matrix	Instr	ument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-12-529-857	LCS		Aqueous	GC	44	12/08/15	12/09/1	5 16:08	151208L12	
099-12-529-857	LCSD		Aqueous	GC	44	12/08/15	12/09/1	5 16:22	151208L12	
Parameter	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.3257	65	0.3372	67	50-135	36-149	3	0-25	
Gamma-BHC	0.5000	0.3434	69	0.3426	69	50-135	36-149	0	0-25	
Beta-BHC	0.5000	0.3548	71	0.3191	64	50-135	36-149	11	0-25	
Heptachlor	0.5000	0.3520	70	0.3590	72	50-135	36-149	2	0-25	
Delta-BHC	0.5000	0.3589	72	0.3506	70	50-135	36-149	2	0-25	
Aldrin	0.5000	0.3612	72	0.3679	74	50-135	36-149	2	0-25	
Heptachlor Epoxide	0.5000	0.3682	74	0.3736	75	50-135	36-149	1	0-25	
Endosulfan I	0.5000	0.3632	73	0.3681	74	50-135	36-149	1	0-25	
Dieldrin	0.5000	0.3715	74	0.3814	76	50-135	36-149	3	0-25	
4,4'-DDE	0.5000	0.3858	77	0.3917	78	50-135	36-149	2	0-25	
Endrin	0.5000	0.2693	54	0.3042	61	50-135	36-149	12	0-25	
Endrin Aldehyde	0.5000	0.3551	71	0.3563	71	50-135	36-149	0	0-25	

0.3721

0.3876

0.3887

0.3531

0.3910

74

78

78

71

78

50-135

50-135

50-135

50-135

50-135

36-149

36-149

36-149

36-149

36-149

2

1

4

4

11

0-25

0-25

0-25

0-25

0-25

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

4,4'-DDD

4,4'-DDT

Endosulfan II

Methoxychlor

Endosulfan Sulfate



LCS/LCSD - Surrogate

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

15-12-0415 EPA 3510C EPA 8081A

12/05/15

Page 2 of 4

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba	tch Number
099-12-529-857	LCS		Aqueous	GC 44	12/08/15	12/09/15 16:08	151208L12	
099-12-529-857	LCSD		Aqueous	GC 44	12/08/15	12/09/15 16:22	151208L12	
Parameter		Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	Qualifiers
Decachlorobiphenyl		0.01000	0.7710	77	0.7992	80	50-135	
2,4,5,6-Tetrachloro-m-Xylene		0.01000	0.7516	75	0.7811	78	50-135	





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

12/05/15 15-12-0415 EPA 3510C **EPA 8081A**

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 3 of 4

Quality Control Sample ID	Туре		Matrix	Ir	nstrument	Date Prepare	d Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-5	LCS		Aqueous	G	iC 44	12/08/15	12/09/1	5 16:37	151208L11	
099-16-704-5	LCSD		Aqueous	G	C 44	12/08/15	12/09/1	5 16:51	151208L11	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	33.35	24.04	72	24.05	72	50-150	33-167	0	0-25	
4,4'-DDD	33.35	24.99	75	24.85	75	50-150	33-167	1	0-25	
4,4'-DDE	33.35	25.84	77	25.73	77	50-150	33-167	0	0-25	
4,4'-DDT	33.35	26.12	78	26.01	78	50-150	33-167	0	0-25	
Alpha Chlordane	33.35	25.00	75	24.91	75	50-150	33-167	0	0-25	
Dieldrin	33.35	25.93	78	26.09	78	50-150	33-167	1	0-25	
Gamma Chlordane	33.35	24.55	74	24.48	73	50-150	33-167	0	0-25	
Endrin	33.35	21.61	65	21.22	64	50-150	33-167	2	0-25	
Gamma-BHC	33.35	23.66	71	23.77	71	50-150	33-167	0	0-25	
Heptachlor	33.35	24.55	74	24.60	74	50-150	33-167	0	0-25	
Heptachlor Epoxide	33.35	24.47	73	24.45	73	50-150	33-167	0	0-25	

Total number of LCS compounds: 11 Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



LCS/LCSD - Surrogate

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

15-12-0415 EPA 3510C

EPA 8081A

12/05/15

Page 4 of 4

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Ba	atch Number
099-16-704-5	LCS		Aqueous	GC 44	12/08/15	12/09/15 16:37	151208L11	
099-16-704-5	LCSD		Aqueous	GC 44	12/08/15	12/09/15 16:51	151208L11	
Parameter		Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	<u>Qualifiers</u>
Decachlorobiphenyl		66.70	74.56	75	74.02	74	50-150	
2,4,5,6-Tetrachloro-m-Xylene		66.70	75.25	75	76.51	77	50-150	

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 15-12-0415				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 8081A	EPA 3510C	960	GC 44	1



Ζ

Glossary of Terms and Qualifiers

Work Order: 15-12-0415 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Analyte presence was not confirmed by second column or GC/MS analysis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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(EC)
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12/08/
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(Weiss)
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Andrew
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received
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Revised

Chain of Custody Record		INSTRUCTIONS FOR LAB PERSONNEL:	
CalSciene Environmental Lab 5063 Commercial Circle, Suite H Concord, CA 94520 Phone: 975,689,9072	Please send analytic results, electronic deliverables and the original chain-of-custody form to: labresults@weiss.com ajm@weiss.com sah@weiss.com	Geofracker EDF required?	15-12-0415
ı	Project Manager: Scott Bourne	Protocol ID/path: J/Levin Richmond/03b Sampling	COC Number:
Weiss Associates			
2200 Powell Street, Suite 925	Sampled by: BPB/AJM		
Emeryville, CA 94608	Sample date(s): 12/3/2015		Page of
(510) 450-6000 Phone	lysi	_	
(510) 547-5043 FAX			SDG nümber:
Job Name: LRT 2015-2016 Annual Storm Water Sampling	Standard	-	
Address: Levin Richmond Terminal, Address: 402 Wright Avenue, Richmond, CA 94804	(Specify Days or Hours)	() sivili (3) səb	
Cas ID Sample Identification	Sample Date Time Matrix # of Cont.	Contract Contract	Sample Specific Notes:
TS2-I-2(וניע	×	SEE COMMENTS
	\vdash		
	Field Filtered (X):	(X)	
Preservation Used: 1= Ice, 2= HCl; 3= H,SO4; 4=HNO1; 5=NaOH; 6= Other	4=HNO1; 5=NaOH; 6= Other		
Special Instructions/OC Requirements & Comments: Level II Report, Report with reportil 8081A for each sample). LIMITED SAMPLE TC#5158 prepare using 0.5 Liter to 5 mL. - Use ECI #TC 5158 - report Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Endosulfan I,		Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-level 8 prepare using 0.5 Liter to 5 mL. Chlordane, Delta-BHC, Endosulfan II, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor.	for lowest detection limits (standard 8081A and low-level 2,4-DDD, 2,4-DDE,
- Use ECI #TC 6956 - report 4,4'-DDD, 4,4'-DDE, 4	4,4'-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin,	dane, Gamma-BHC, Heptachlor, Heptachlor Ep	de and Toxaphene , 1 2,4 - DOT (AJM)
Marine of Mall	8	FUDGE 0	4
Religious for J Mul		Received by	Company Date/Time
Religion To GSI		Received by:	Company GLI Date Time 15 0920
E Zamples released to a secured, locked area.	ed area.	Samples received from a secured, locked area	



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Calscience

SAMPLE RECEIPT CHECKLIST COOLER / OF /

CLIENT:	: Weiss DAT					TE: 12 / <u>O</u> / 2015		
Thermomet Samp Samp Samp	er ID: SC2 (CF:-0.4°C); Te le(s) outside temperature d le(s) outside temperature d	0°C, not frozen except sedim mperature (w/o CF): 2. criteria (PM/APM contacted be criteria but received on ice/choerature; placed on ice for tra	<u>9</u> °C (w/ CF): y:) illed on same day o		Blank [
CUSTODY Cooler Sample(s)	SEAL: Present and Intact Present and Intact	☐ Present but Not Intact☐ Present but Not Intact	□ Not Present ☑ Not Present	□ N/A □ N/A	Checke Checke		Sr 1050	
Chain-of-Co	ment(s) received complete	received with samples e □ Matrix □ Number of c				No	N/A	
☐ No ar Sampler's r Sample cor	nalysis requested	elinquished	ed date 🛚 No reli				_ _ _	
Proper con Sufficient v Samples re	tainers for analyses reques olume/mass for analyses r eceived within holding time	equested						
□ pH [Proper pres	☐ Residual Chlorine ☐ Di servation chemical(s) noted	ses received within 15-minut ssolved Sulfide Dissolved on COC and/or sample con eceived for certain analyses	d Oxygen					
□ Volat Container(s	ile Organics □ Total Meta s) for certain analysis free				. 🗆		₫	
☐ Carb	on Dioxide (SM 4500)	Ferrous Iron (SM 3500) D F	lydrogen Sulfide (F	łach)			Z	
Aqueous: 1 125PBzr 1250PB Solid: 1 40 Air: 1 Ted Container: A	□ VOA □ VOAh □ VOAr nna □ 250AGB □ 250CG □ TAGB □ 1AGBna ₂ □ TO DZCGJ □ 80ZCGJ □ 1602 lar™ □ Canister □ Sorbe A = Amber, B = Bottle, C = Cle	na ₂ □ 100PJ □ 100PJna ₂ □ B □ 250CGBs □ 250PB □ IAGBs □ 1PB □ 1PBna □ zCGJ □ Sleeve () □ E ent Tube □ PUF □ ear, E = Envelope, G = Glass, J	□ 125AGB □ 125A □ 250PBn □ 500A □ □ □ □ EnCores® () Other Matrix (= Jar, P = Plastic, an	AGBh ☐ 125. GB ☐ 500AG ☐ ☐ ☐ ☐ TerraCores ☐): d Z = Ziploc/Re	AGBp GJ GJ GSJ GSS GSS GSS GSS GSS GSS GSS GSS GSS GS	125PB AGJ s I		
Preservative		= HCI, \mathbf{n} = HNO ₃ , \mathbf{na} = NaOH, \mathbf{n} tn \mathbf{na} = Zn(CH ₃ CO ₂) ₂ + NaOH		, O4, Label	Review	ed by:	1017	

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-68997-1

Client Project/Site: LRT 2015-2016 Annual StormWater

Sampling

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Minch RJ Sono

Authorized for release by: 12/18/2015 12:04:57 PM

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Weiss Associates Project/Site: LRT 2015-2016 Annual StormWater Sampling TestAmerica Job ID: 720-68997-1

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Definitions/Glossary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

TestAmerica Job ID: 720-68997-1

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

ND PQL

QC RER

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

Case Narrative

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Job ID: 720-68997-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-68997-1

Comments

No additional comments.

Receipt

The samples were received on 12/4/2015 12:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.5° C and 2.6° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: TS1-I-2015-2 (720-68997-1) and TS2-I-2015-2 (720-68997-2). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-299712 and analytical batch 440-299762. The laboratory control (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client: Weiss Associates

Client Sample ID: TS1-I-2015-2

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Lab Sample ID: 720-68997-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	3.7		0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.14		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	12	В	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.027		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	1.7		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	1.6		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	180		10	10	mg/L	1	_	SM 2540D	Total/NA
pH	9.71	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Lab Sample ID: 720-68997-2 Client Sample ID: TS2-I-2015-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.0		0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.025		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	2.8	В	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0084		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.15		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.38		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	170		10	10	mg/L	1	_	SM 2540D	Total/NA
рН	7.62	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TS2-M-2015-2 Lab Sample ID: 720-68997-3

Analyte	Result Qualifier	RL	RL Unit	Dil Fac D Method	Prep Type
Total Suspended Solids	87	4.0	4.0 mg/L	1 SM 2540D	Total/NA

Client Sample ID: TS1-M-2015-2 Lab Sample ID: 720-68997-4

Analyte	Result Qualifier	RL	RL Unit	Dil Fac D Method	Prep Type
Total Suspended Solids	190	10	10 mg/L	1 SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

12/18/2015

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-68997-1

Matrix: Water

TestAmerica Job ID: 720-68997-1

Client Sample ID: TS1-I-2015-2 Date Collected: 12/03/15 16:10

Date Received: 12/04/15 12:17

Method: 200.8 - Metals (ICP/MS	3)							
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3.7	0.10	0.10	mg/L		12/08/15 15:04	12/09/15 17:51	1
Copper	0.14	0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 17:51	1
Iron	12 B	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 17:51	1
Nickel	0.027	0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 17:51	1
Lead	1.7	0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 17:51	1
Zinc	1.6	0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 17:51	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.5		5.3	1.5	mg/L		12/11/15 07:02	12/11/15 10:13	1
SGT-HEM	<1.5		5.3	1.5	mg/L		12/11/15 07:02	12/11/15 10:13	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	180		10	10	mg/L			12/07/15 20:46	1
рН	9.71	HF	0.100	0.100	SU			12/04/15 14:53	1

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-68997-2

TestAmerica Job ID: 720-68997-1

Matrix: Water

Date Collected: 12/03/15 15:15 Date Received: 12/04/15 12:17

Client Sample ID: TS2-I-2015-2

CP/MS) Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1.0	0.10	0.10	mg/L		12/08/15 15:04	12/09/15 17:55	1
0.025	0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 17:55	1
2.8 B	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 17:55	1
0.0084	0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 17:55	1
0.15	0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 17:55	1
0.38	0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 17:55	1
	Result Qualifier 1.0 0.025 2.8 B 0.0084 0.15	Result 1.0 Qualifier 0.10 0.025 0.0020 0.0020 2.8 B 0.040 0.0030 0.15 0.00040 0.00040	Result 1.0 Qualifier Qualifier RL 0.10 MDL 0.10 0.025 0.0020 0.00060 2.8 B 0.040 0.0058 0.0084 0.0030 0.00040 0.15 0.00040 0.000034	Result 1.0 Qualifier Qualifier RL Qualifier MDL QUALIFIER MQ/L QUALIFIER MDL QUALIFIER MQ/L QUALIFIER MDL	Result 1.0 Qualifier Qualifier RL QUALIFIER QUALIFICATION QUALIFIER QUALIFIER QUALIFIER QUALIFIER QUALIFIER QUALIFICATION QUALIFIER QUALIFIER QUALIFIER QUALIFIER QUALIFIER QUALIFICATION QUALIFIER QUALIFIER QUALIFIER QUALIFICATION QUALIFIER QUALIFICATION QUALIFI	Result 1.0 Qualifier RL 0.10 MDL 0.10 Unit mg/L mg/L 0.008/15 15:04 D 12/08/15 15:04 0.025 0.0020 0.00060 mg/L 0.0058 mg/L 0.008/15 15:04 12/08/15 15:04 0.0084 0.0030 0.00040 mg/L 0.0008/15 15:04 12/08/15 15:04 0.15 0.00040 0.000034 mg/L 0.000034 mg/L 0.0008/15 15:04	Result 1.0 Qualifier 0.10 RL 0.10 MDL 0.10 Unit mg/L mg/L mg/L 0.20 D 12/08/15 15:04 Prepared 12/09/15 17:55 Analyzed 12/09/15 17:55 0.025 0.0020 0.0060 mg/L 0.0060 12/08/15 15:04 12/09/15 17:55 12/09/15 17:55 2.8 B 0.040 0.0030 0.00040 mg/L 0.0064 12/08/15 15:04 12/09/15 17:55 12/09/15 17:55 0.0084 0.0030 0.00040 mg/L 0.0064 0.0030 mg/L 0.0064 12/08/15 15:04 12/09/15 17:55 0.15 0.0064 0.0064 0.00664 0.0066 mg/L 0.0066 12/08/15 15:04 12/09/15 17:55

-									
General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.5		5.2	1.5	mg/L		12/11/15 07:02	12/11/15 09:13	1
SGT-HEM	<1.5		5.2	1.5	mg/L		12/11/15 07:02	12/11/15 09:13	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	170		10	10	mg/L			12/07/15 20:46	1
pH	7.62	HE	0.100	0.100	SU			12/04/15 15:00	1

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Client Sample ID: TS2-M-2015-2 Lab Sample ID: 720-68997-3 Date Collected: 12/03/15 15:45

Matrix: Water

Date Received: 12/04/15 12:17

General Chemistry								
Analyte	Result Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	87	4.0	4.0	mg/L			12/07/15 20:46	1

Client: Weiss Associates
Project/Site: LRT 2015-2016 Annual StormWater Sampling

Date Collected: 12/03/15 16:20 Matrix: Water Date Received: 12/04/15 12:17

General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	190		10	10	mg/L			12/07/15 20:46	1

TestAmerica Job ID: 720-68997-1

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TestAmerica Job ID: 720-68997-1

Client Sample ID: Method Blank

Prep Batch: 207361

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-207361/14-A

Matrix: Water

Client: Weiss Associates

Analysis Batch: 207526

	Chone Campio ID: mothica Blank
	Prep Type: Total/NA
	Prep Batch: 207361
MR MR	

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		12/08/15 15:04	12/09/15 17:01	1
Copper	<0.00060		0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 17:01	1
Iron	0.0126	J	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 17:01	1
Nickel	<0.00040		0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 17:01	1
Lead	<0.000034		0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 17:01	1
Zinc	<0.0019		0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 17:01	1

Lab Sample ID: LCS 580-207361/15-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 207526

LCS LCS Spike %Rec. Added Analyte Result Qualifier Unit %Rec Limits 1.00 Aluminum 1.00 mg/L 100 85 - 115 85 - 115 0.100 Copper 0.0967 mg/L 97 10.0 9.79 mg/L 98 85 - 115 Iron

Nickel 0.100 0.0977 mg/L 98 85 - 115 Lead 0.100 0.0981 mg/L 98 85 - 115 Zinc 0.100 0.0974 mg/L 97 85 - 115

Lab Sample ID: LCSD 580-207361/16-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

0.100

Analysis Batch: 207526 Prep Batch: 207361 Spike LCSD LCSD %Rec. **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit D Aluminum 1.00 1.06 mg/L 85 - 115 5 20 106 0.100 0.102 Copper mg/L 102 85 - 115 5 20 10.0 10.4 mg/L 104 85 - 115 20 Iron 6 Nickel 0.100 0.102 mg/L 102 85 - 115 20 85 - 115 Lead 0.100 0.106 mg/L 106 8 20

0.102

34.8

mg/L

mg/L

102

87

85 - 115

Method: 1664A - HEM and SGT-HEM

Zinc

HEM

Lab Sample ID: MB 440-299712/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA **Analysis Batch: 299762** Prep Batch: 299712

MR MR Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 5.0 <u>12/11/15 07:02</u> <u>12/11/15 10:13</u> HEM <1.4 1.4 mg/L

Lab Sample ID: LCS 440-299712/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Prep Batch: 299712 Analysis Batch: 299762** LCS LCS Spike %Rec. Added Analyte Result Qualifier Unit %Rec Limits

40.0

TestAmerica Pleasanton

12/18/2015

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Page 10 of 22

TestAmerica Job ID: 720-68997-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-299712/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA **Analysis Batch: 299762 Prep Batch: 299712** Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit D %Rec Limits RPD Limit Analyte 40.0 HEM 34.9 mg/L 87 78 - 114 0 11

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 720-193742/3 **Client Sample ID: Method Blank** Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 193742

Client: Weiss Associates

MB MB

RL **RL** Unit Analyte Result Qualifier Dil Fac D Prepared Analyzed Total Suspended Solids <1.0 1.0 1.0 mg/L 12/07/15 20:46

Lab Sample ID: LCS 720-193742/1 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 193742

Spike LCS LCS %Rec. Analyte Added Result Qualifier Limits **Total Suspended Solids** 500 360 mg/L 69 - 117

Lab Sample ID: LCSD 720-193742/2 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 193742

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit Limits RPD Limit %Rec **Total Suspended Solids** 500 396 mg/L 69 - 117

Lab Sample ID: 720-68997-4 DU Client Sample ID: TS1-M-2015-2 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 193742

Sample Sample חם חם RPD Result Qualifier Result Qualifier RPD Limit Analyte Unit Total Suspended Solids 190 192 mg/L 10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 720-193633/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 193633

Spike LCS LCS %Rec. Added Result Qualifier **Analyte** Unit D %Rec Limits SU 7.00 6.930 99 pН 99 - 101

Lab Sample ID: 720-68997-1 DU Client Sample ID: TS1-I-2015-2 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 193633

Sample Sample DU DU **RPD** Analyte Result Qualifier Result Qualifier Unit D RPD Limit рН 9.71 HF 9.670 SU 0.4

TestAmerica Pleasanton

QC Association Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Metals

Prep Batch: 207361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68997-1	TS1-I-2015-2	Total/NA	Water	200.8	
720-68997-2	TS2-I-2015-2	Total/NA	Water	200.8	
LCS 580-207361/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-207361/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-207361/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 207526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68997-1	TS1-I-2015-2	Total/NA	Water	200.8	207361
720-68997-2	TS2-I-2015-2	Total/NA	Water	200.8	207361
LCS 580-207361/15-A	Lab Control Sample	Total/NA	Water	200.8	207361
LCSD 580-207361/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	207361
MB 580-207361/14-A	Method Blank	Total/NA	Water	200.8	207361

General Chemistry

Analysis Batch: 193633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68997-1	TS1-I-2015-2	Total/NA	Water	SM 4500 H+ B	
720-68997-1 DU	TS1-I-2015-2	Total/NA	Water	SM 4500 H+ B	
720-68997-2	TS2-I-2015-2	Total/NA	Water	SM 4500 H+ B	
LCS 720-193633/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 193742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68997-1	TS1-I-2015-2	Total/NA	Water	SM 2540D	_
720-68997-2	TS2-I-2015-2	Total/NA	Water	SM 2540D	
720-68997-3	TS2-M-2015-2	Total/NA	Water	SM 2540D	
720-68997-4	TS1-M-2015-2	Total/NA	Water	SM 2540D	
720-68997-4 DU	TS1-M-2015-2	Total/NA	Water	SM 2540D	
LCS 720-193742/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-193742/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-193742/3	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 299712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68997-1	TS1-I-2015-2	Total/NA	Water	1664A	
720-68997-2	TS2-I-2015-2	Total/NA	Water	1664A	
LCS 440-299712/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-299712/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-299712/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 299762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
720-68997-1	TS1-I-2015-2	Total/NA	Water	1664A	299712	
720-68997-2	TS2-I-2015-2	Total/NA	Water	1664A	299712	
LCS 440-299712/2-A	Lab Control Sample	Total/NA	Water	1664A	299712	
LCSD 440-299712/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	299712	
MB 440-299712/1-A	Method Blank	Total/NA	Water	1664A	299712	

TestAmerica Pleasanton

12/18/2015

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Client Sample ID: TS1-I-2015-2

Lab Sample ID: 720-68997-1 Date Collected: 12/03/15 16:10

Matrix: Water

Date Received: 12/04/15 12:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			207361	12/08/15 15:04	MKN	TAL SEA
Total/NA	Analysis	200.8		1	207526	12/09/15 17:51	FCW	TAL SEA
Total/NA	Prep	1664A			299712	12/11/15 07:02	L1A	TAL IRV
Total/NA	Analysis	1664A		1	299762	12/11/15 10:13	LEG	TAL IRV
Total/NA	Analysis	SM 2540D		1	193742	12/07/15 20:46	EYT	TAL PLS
Total/NA	Analysis	SM 4500 H+ B		1	193633	12/04/15 14:53	EYT	TAL PLS

Client Sample ID: TS2-I-2015-2

Lab Sample ID: 720-68997-2 Date Collected: 12/03/15 15:15 **Matrix: Water**

Date Received: 12/04/15 12:17

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			207361	12/08/15 15:04	MKN	TAL SEA
Total/NA	Analysis	200.8		1	207526	12/09/15 17:55	FCW	TAL SEA
Total/NA	Prep	1664A			299712	12/11/15 07:02	L1A	TAL IRV
Total/NA	Analysis	1664A		1	299762	12/11/15 09:13	LEG	TAL IRV
Total/NA	Analysis	SM 2540D		1	193742	12/07/15 20:46	EYT	TAL PLS
Total/NA	Analysis	SM 4500 H+ B		1	193633	12/04/15 15:00	EYT	TAL PLS

Client Sample ID: TS2-M-2015-2

Lab Sample ID: 720-68997-3 Date Collected: 12/03/15 15:45 **Matrix: Water**

Date Received: 12/04/15 12:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D			193742	12/07/15 20:46	EYT	TAL PLS

Client Sample ID: TS1-M-2015-2 Lab Sample ID: 720-68997-4

Date Collected: 12/03/15 16:20 **Matrix: Water**

Date Received: 12/04/15 12:17

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D			193742	12/07/15 20:46	EYT	TAL PLS

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022 TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

Certification Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Laboratory: TestAmerica Pleasanton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16 *

Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program		EPA Region	Certification ID	Expiration Date
California	State Prog	gram	9	2706	06-30-16
The following analytes	s are included in this repo	rt, but certification is	not offered by the go	overning authority:	
The following analytes Analysis Method	s are included in this repo	rt, but certification is Matrix	not offered by the go Analyt	,	

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS
SM 4500 H+ B	рН	SM	TAL PLS

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022 TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-68997-1

Lab Sample ID	Client Sample ID	Matrix	Collected I	Received
720-68997-1	TS1-I-2015-2	Water	12/03/15 16:10 12/	/04/15 12:17
720-68997-2	TS2-I-2015-2	Water	12/03/15 15:15 12/	/04/15 12:17
720-68997-3	TS2-M-2015-2	Water	12/03/15 15:45 12/	/04/15 12:17
720-68997-4	TS1-M-2015-2	Water	12/03/15 16:20 12/	/04/15 12:17

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区= Samples released to a secured, locked area.	Victor Rand	The forest function	LIC A		Special Instructions/OC Requirements & Comments:	Preservation Used: $1=\text{Ice}$, $2=\text{HCl}$; $3=\text{H}_2\text{SO}_2$; $4=\text{HNO}_3$; $5=\text{NaOH}$; $6=\text{Other}$		The second secon	720-68997 Chain of Custody					7-5102-H-151	T52-4-2015-2	752-1-2015-2	751-3	Tab 19: Sample Identification	Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804	Job Name: LRT 2015-2016 Annual Storm Water Sampling	(510) 547-5043 FAX	(510) 450-6000 Phone	Emeryville, CA 94608	2200 Powell Street, Suite 925	Weiss Associates	Client Contact	Phone: 925-484-1919 ext.137	Pleasanton, CA 94566	1820 Onarry Lane	T	Chain of Custody Record		(
rea.	Company			<u>,</u>	Level II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).	INO3; 5=NaOH; 6= Other								*	4		12/3/15	Sample Date	(Spec			Analysis	(s):	.7	Project ID: 4	Project Manager: S	sab@weiss.com	ajm@weiss.com	onginal chain-or-custody form to labrasults@waiss.com	Please send analytic results, electronic deliverables and the			
	- -			1.00	ort with rep	-								1620	1545	5151	019	Sample Time	(Specify Days or Hours)	Standard	-	Analysis Turnaround Time:	12/3/2015	BPB/AJM	426-2026.01 Task 1.1.3	Scott Bourne			ry roum to.	ults, electron	-		
	Date/Time:	Date/Time	M		orting limit		, Light, F							<	4		٤	Sample Matrix #	ours)			nd Time:			ask 1.1.3					ic deliverable:	•	りと	
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•	1.	ا ا	THOSE IN		tion lim	1 1,2								×	X	×	x	Total :		_			—	•		path:	Call immediately with any questi	Notify us of any anomalous peaks in GC or other scans.	Equis 4-rue EDWEDD required:	GeoTracker EDF required?	INSTRUCTIONS FOR LAB PERSONNEL:	Š	(
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TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

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Chain of Custody Record

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Client Information (Sub Contract Lab)			Sm	Smith, Micah					720-26847.1		
Cilent Contact: Shipping/Receiving	Phone:		mic mic	ali: ah.smith@test.	E-Mail: micah.smith@testamericainc.com				Page: Page 1 of 1		
Company: TestAmerica Laboratories, Inc					Analysis	sis Requested	ted		Job #: 720-68997-1		
Address:	Due Date Requested:				 - -				Preservation Codes	des:	_
17461 Derian Ave, Suite 100,	12/11/2015								A - HCL	M - Hexane	
City: Trvine	TAT Requested (days):								B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip: CA, 92614-5817				HEW		-			D - Nitric Acid E - NaHSO4 E - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2SO3	
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO#:								G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
ı	WO#:			100				s.	I - Ice J - Di Water	U - Acetone V - MCAA	
Project Name: LRTC Stormwater	Project #: 72009078	-		//0,50				enistr	K - EDTA L - EDA	W - ph 4-5 Z - other (specify)	
	SSOW#:			al ası				103 JO	Other:		
Sample Identification - Client ID (Lab ID)	Sample Date T	Sample Type Sample (C=comp,	le Matrix (W=water, S=solid, O=waste/oil, D) BT=Tissue, A=Air)	betelliä bleid Mälli sesokot 9_Ateer\Ateer				nedmuk istoT	Special Ir	Special Instructions/Note:	
	()							\boxtimes			
TS1-I-2015-2 (720-68997-1)	12/3/15 16	3:10 cific	Water	×				2			
TS2-I-2015-2 (720-68997-2)	12/3/15 Pe	15:15 Pacific	Water	×				2			
											. 1
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											-
				-							
Possible Hazard Identification Unconfirmed				Sample D	isposal (A fee	may be asses:	sed if samples al Bv Lab	are retaine	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Mon	f month) Months	
Deliverable Requested: I, II, III, IV, Other (specify)				Special In	Special Instructions/QC Requirements:	equirements:	 				
Empty Kit Relinquishey'by:	Date:		} } }	Time:			Method of Shipment:	÷		:	
Relinquished by:	Date/Tilhe:	5/5	à control	Received by:	ed by:		Date/Time:	ime:		Company	
Relinquished by:	Date/Tinye:		Company	Received by:	d by:	0	Date/Time:	ime:	i İ	Company	
Relinquished by:	Date/Time:		Company		Berth	Soll	Date/Til	7/8/-	9.55	Company. T. T.	•
Custody Seals Intact: Custody Seal No: # 105 18-	05 18-8276-968	9652		Coole	Cooler Temperature(s) °C and Other Remarks:	nd Other Remarks	1.8/2	It	ととみ		
)				1	7					
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1220 Quarry Lane

Chain of Custody Record



Pleasanton, CA 94566	C	hain of	Chain of Custody Record	ay Ke	cora								THE LEADER IN ENVIRONMENTAL	NASOWNENIN' LEBUNG	
City (22) 404-1313 Fax (223) 000-3002	Sampler:		:	Lab PM:	Aircah			Ω	Carrier Tracking No(s):	ing No(s):			COC No:		 8/20
Client Contact: (Cub Continued Eab)	Phone:			E-Mail:								m!	age:		
Shipping/Receiving				mican.s	micah.smith@testamerica		inc.com						Page OT		<u></u> 1
Company: TestAmerica Laboratories, Inc.							Analysis	s Requested	ested			216	Job #: 720-68997-1		<u> </u>
Address: 5755 8th Street East,	Due Date Requested: 12/11/2015	11		-									Preservation Codes: A - HCL M	des: M-Hexane	
City. Tacoma	TAT Requested (days):	/s):			b, Zn k								B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip: WA, 98424					, Ni, P			·········				:	D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
Phone: 253-922-2310(Tel) 253-922-5047(Fax)	PO#			o) ~	Cu, F								G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
	WO#.			i or N									I - Ice J - DI Water	U - Acetone V - MCAA	
Project Name: LRTC Stormwater	Project #: 72009078			e (Ye									L-EDA	Z - other (specify)	
Site:	SSOW#:			amp		*********		·····					Other:		
			Sample N	Matrix W=water,	m M\$/M CWA/200.							Number			
Sample Identification - Client ID (Lab ID)	Sample Date	Sample (<u> </u>	S=solid, C O=waste/oil, O BT=Tissue, A=Air)								Tótal Ņ	Special Ir	Special Instructions/Note:	
			LΩ 1						2	2004		X	7.00 m	10,000	22
TS1-I-2015-2 (720-68997-1)	12/3/15	16:10 Pacific	1	Water	×							9-3:			 9 of
TS2-I-2015-2 (720-68997-2)	12/3/15	15:15 Pacific		Water	×							ুই			l le 1
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Possible Hazard Identification			i		Sample Disposa)	(A fee may	If be ass $\bigcap_{i \in I} b_i$	be assessed if samples	sample	□are	stained long Archive For	ger than 1	month)	
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:	structions	JQC Requ	irements		i					
Empty Kit Relinquished by:	,	Date:		Tir	Time:			Į	Method	Method of Shipment	ent				
Relinquished by:	Date/Time;	15/3	Company	A pany	Received by:	ed by:	5	2		Date/T		5	liob	Company 77	<u> </u>
Relinquished by:	Date/Time:		Com	Company /	Receive	Received by:		`		Date/Time:	**			Company	
Relinquished by:	Date/Time:		Com	Company	Received by:	ed by:				Date/Time:	Time:			Company	
Custody Seals Intact: Custody Seal No.: A Yes A No					Cooler	Cooler Temperatur	ure(s) "Gand Other Remarks:	Other Rema	narks:	O	0.0				
										٠					

Client: Weiss Associates Job Number: 720-68997-1

Login Number: 68997 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Creator. Arauz, Dennis		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-68997-1

List Source: TestAmerica Irvine
List Number: 2
List Creation: 12/08/15 01:01 PM

Creator: Ornelas, Olga

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates

Job Number: 720-68997-1

List Source: TestAmerica Seattle
List Number: 3
List Creation: 12/08/15 02:35 PM

Creator: Vance, Diane R

Creator. Valice, Dialie N		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-68998-1 Client Project/Site: LRTC Stormwater

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Authorized for release by: 12/15/2015 5:37:49 PM

Micah Smith, Project Manager II (925)484-1919

Minch RJ Somo

micah.smith@testamericainc.com

..... LINKS

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

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Definitions/Glossary

Client: Weiss Associates
Project/Site: LRTC Stormwater

TestAmerica Job ID: 720-68998-1

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

ND PQL

QC RER

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC.	Not Calculated

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

Case Narrative

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Job ID: 720-68998-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-68998-1

Comments

No additional comments.

Receipt

The samples were received on 12/4/2015 12:17 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.5° C and 2.6° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) SM 4500 H+ B: The following samples were reported without a closing CCV because the data file was lost and could not be recovered: TS1-E-2015-2 (720-68998-1), TS2-E-2015-2 (720-68998-2) and FD-2015-2 (720-68998-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: TS1-E-2015-2 (720-68998-1), TS2-E-2015-2 (720-68998-2) and FD-2015-2 (720-68998-3). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-299712 and analytical batch 440-299762. The laboratory control (LCS) was performed in duplicate to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Client Sample ID: TS1-E-2015-2

Lab Sample ID: 720-68998-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.24		0.10	0.10	mg/L		_	200.8	Total/NA
Copper	0.013		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	0.67	В	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0030		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.12		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.13		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids			2.9	2.9	mg/L		_	SM 2540D	Total/NA
pH	7.99	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: TS2-E-2015-2

Lab Sample ID: 720-68998-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0047		0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.038	JB	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0021	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0014		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.12		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	1.1		1.0	1.0	mg/L		_	SM 2540D	Total/NA
pH	7.78	HF	0.100	0.100	SU	1		SM 4500 H+ B	Total/NA

Client Sample ID: FD-2015-2

Lab Sample ID: 720-68998-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0046		0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.039	JB	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0021	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0014		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.12		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.79	HF	0.100	0.100	SU		_	SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Lab Sample ID: 720-68998-1 **Matrix: Water**

Client	: Samp	le ID:	TS1-	E-20′	15-2
D - 1 - 0		40/00	4-40	4 =	

Date Collected: 12/03/15 16:15

Date Received: 12/04/15 12:17

Analyte	Result Qu	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.24	0.10	0.10	mg/L		12/08/15 15:04	12/09/15 18:00	1
Copper	0.013	0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 18:00	1
Iron	0.67 B	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 18:00	1
Nickel	0.0030	0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 18:00	1
Lead	0.12	0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 18:00	1
Zinc	0.13	0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 18:00	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.4		5.2	1.4	mg/L		12/11/15 07:02	12/11/15 10:13	1
SGT-HEM	<1.4		5.2	1.4	mg/L		12/11/15 07:02	12/11/15 10:13	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	19		2.9	2.9	mg/L			12/07/15 20:46	1
pH	7.99	HF	0.100	0.100	SU			12/04/15 13:57	1

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Lab Sample ID: 720-68998-2

Matrix: Water

12/11/15 07:02 12/11/15 10:13

12/11/15 07:02 12/11/15 10:13

Analyzed

12/07/15 20:46

12/04/15 14:08

Prepared

CI	ient	Sai	mple	ID:	TSZ	2-E-2	015-2

Date Collected: 12/03/15 15:35 Date Received: 12/04/15 12:17

HEM

SGT-HEM

Total Suspended Solids

Analyte

рΗ

Method: 200.8 - Metals (ICI Analyte	Result Qualifie	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10	0.10	0.10	mg/L		12/08/15 15:04	12/09/15 17:10	1
Copper	0.0047	0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 17:10	1
Iron	0.038 JB	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 17:10	1
Nickel	0.0021 J	0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 17:10	1
Lead	0.0014	0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 17:10	1
Zinc	0.12	0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 17:10	1
General Chemistry								
Analyte	Result Qualifie	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

5.4

5.4

RL

1.0

0.100

<1.5

<1.5

1.1

7.78 HF

Result Qualifier

1.5 mg/L

1.5 mg/L

RL Unit

1.0 mg/L

0.100 SU

D

1	
Dil Fac	
1	

Client: Weiss Associates Project/Site: LRTC Stormwater

Client Sample ID: FD-2015-2

TestAmerica Job ID: 720-68998-1

Lab Sample ID: 720-68998-3

Matrix: Water

Date Collected: 12/03/15 15:40 Date Received: 12/04/15 12:17

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		12/08/15 15:04	12/09/15 18:05	1
Copper	0.0046		0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 18:05	1
Iron	0.039	JB	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 18:05	1
Nickel	0.0021	J	0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 18:05	1
Lead	0.0014		0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 18:05	1
Zinc	0.12		0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 18:05	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	<1.5		5.3	1.5	mg/L		12/11/15 07:02	12/11/15 10:13	1
SGT-HEM	<1.5		5.3	1.5	mg/L		12/11/15 07:02	12/11/15 10:13	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<1.0		1.0	1.0	mg/L			12/07/15 20:46	1
pH	7.79	HE	0.100	0.100	SH			12/04/15 14:16	1

TestAmerica Job ID: 720-68998-1

Client: Weiss Associates Project/Site: LRTC Stormwater

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-207361/14-A

Matrix: Water

Analysis Batch: 207526

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 207361

	MB	MB						•	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		12/08/15 15:04	12/09/15 17:01	1
Copper	<0.00060		0.0020	0.00060	mg/L		12/08/15 15:04	12/09/15 17:01	1
Iron	0.0126	J	0.040	0.0058	mg/L		12/08/15 15:04	12/09/15 17:01	1
Nickel	<0.00040		0.0030	0.00040	mg/L		12/08/15 15:04	12/09/15 17:01	1
Lead	<0.000034		0.00040	0.000034	mg/L		12/08/15 15:04	12/09/15 17:01	1
Zinc	<0.0019		0.0070	0.0019	mg/L		12/08/15 15:04	12/09/15 17:01	1

Lab Sample ID: LCS 580-207361/15-A

Matrix: Water

Analysis Batch: 207526

Client Sample ID: Lab Control Sample

Prep Type: Total/NA **Prep Batch: 207361**

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	1.00	1.00		mg/L		100	85 - 115	
Copper	0.100	0.0967		mg/L		97	85 - 115	
Iron	10.0	9.79		mg/L		98	85 - 115	
Nickel	0.100	0.0977		mg/L		98	85 - 115	
Lead	0.100	0.0981		mg/L		98	85 - 115	
Zinc	0.100	0.0974		mg/L		97	85 - 115	

Lab Sample ID: LCSD 580-207361/16-A

Matrix: Water

Analysis Batch: 207526

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 207361

_ =									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	1.00	1.06		mg/L		106	85 - 115	5	20
Copper	0.100	0.102		mg/L		102	85 - 115	5	20
Iron	10.0	10.4		mg/L		104	85 - 115	6	20
Nickel	0.100	0.102		mg/L		102	85 - 115	5	20
Lead	0.100	0.106		mg/L		106	85 - 115	8	20
Zinc	0.100	0.102		ma/L		102	85 - 115	4	20

Lab Sample ID: 720-68998-2 MS

Matrix: Water

Analysis Batch: 207526

Client Sample ID: TS2-E-2015-2

Client Sample ID: TS2-E-2015-2

70 - 130

100

Prep Type: Total/NA

Prep Batch: 207361

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aluminum	<0.10		1.00	1.04		mg/L		104	70 - 130	
Copper	0.0047		0.100	0.0971		mg/L		92	70 - 130	
Iron	0.038	JB	10.0	9.39		mg/L		93	70 - 130	
Nickel	0.0021	J	0.100	0.0977		mg/L		96	70 - 130	
Lead	0.0014		0.100	0.0896		mg/L		88	70 - 130	
Zinc	0.12		0.100	0.207		mg/L		88	70 - 130	

1.00

Lab Sample ID: 720-68998-2 MSD

<0.10

Matrix: Water

Analyte

Aluminum

Analysis Batch: 207526

Prep Type: Total/NA **Prep Batch: 207361** Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit

1.00

TestAmerica Pleasanton

Page 9 of 23 12/15/2015

mg/L

Client: Weiss Associates

TestAmerica Job ID: 720-68998-1

Project/Site: LRTC Stormwater

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 720-68998-2 MSD Client Sample ID: TS2-E-2015-2 **Matrix: Water** Prep Type: Total/NA

Prep Batch: 207361 **Analysis Batch: 207526**

MSD MSD Sample Sample Spike %Rec. **RPD** Result Qualifier Added Limits RPD Analyte Result Qualifier Unit %Rec Limit Copper 0.0047 0.100 0.0944 90 70 - 130 3 20 mg/L Iron 0.038 JB 10.0 9.09 mg/L 90 70 - 130 3 20 0.0949 Nickel 0.0021 J 0.100 mg/L 93 70 - 1303 20 Lead 0.0014 0.100 0.0882 mg/L 87 70 - 130 2 20 Zinc 0.12 0.100 0.201 mg/L 82 70 - 130 20

Lab Sample ID: 720-68998-2 DU Client Sample ID: TS2-E-2015-2

Matrix: Water Prep Type: Total/NA

Analysis Batch: 207526 Prep Batch: 207361

DU DU Sample Sample **RPD** Result Qualifier RPD Analyte Result Qualifier Unit D Limit NC Aluminum <0.10 <0.10 20 mg/L Copper 0.0047 0.00478 mg/L 1 20 0.0348 J 10 20 Iron 0.038 JB mg/L Nickel 0.0021 0.00208 J mg/L 0.4 20 Lead 0.0014 0.00145 20 mg/L 1 Zinc 0.12 0.118 mg/L 0.4 20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-299712/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 299762

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac

HEM 5.0 1.4 mg/L <u>12/11/15 07:02</u> <u>12/11/15 10:13</u>

Lab Sample ID: LCS 440-299712/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 299762 LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits 40.0 HEM 34.8 mg/L 87

Lab Sample ID: LCSD 440-299712/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Prep Batch: 299712 Analysis Batch: 299762 LCSD LCSD RPD Spike %Rec.

Added Analyte Result Qualifier Unit %Rec Limits **RPD** Limit HEM 40.0 34.9 mg/L 87 78 _ 114 n 11

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 720-193742/3 Client Sample ID: Method Blank

Matrix: Water Prep Type: Total/NA **Analysis Batch: 193742**

MB MB Result Qualifier RL **RL** Unit Dil Fac Analyte D Prepared Analyzed 12/07/15 20:46 Total Suspended Solids <1.0 10 1.0 mg/L

TestAmerica Pleasanton

Prep Batch: 299712

Prep Batch: 299712

QC Sample Results

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Lab Sample ID: LCS 720-193742/1 **Matrix: Water**

Analysis Batch: 193742

_	Spike	LCS	LCS			%Rec.	
Analyte	Added	Result	Qualifier Uni	t D	%Rec	Limits	
Total Suspended Solids	500	360	ma/	<u> </u>	72	69 - 117	

Lab Sample ID: LCSD 720-193742/2 **Client Sample ID: Lab Control Sample Dup Matrix: Water Prep Type: Total/NA**

Analysis Batch: 193742

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit Limits RPD Limit Analyte D %Rec 500 396 69 - 117 **Total Suspended Solids** mg/L 10

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 720-193675/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 193675

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit Limits D %Rec SU рН 7.00 6.980 100

Lab Sample ID: 720-68998-1 DU Client Sample ID: TS1-E-2015-2 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 193675

DU DU RPD Sample Sample Analyte Result Qualifier Result Qualifier Unit RPD Limit рН 7.99 HF 7.980 SU 0.1

TestAmerica Job ID: 720-68998-1

Client: Weiss Associates Project/Site: LRTC Stormwater

Metals

Prep Batch: 207361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	200.8	
720-68998-2	TS2-E-2015-2	Total/NA	Water	200.8	
720-68998-2 DU	TS2-E-2015-2	Total/NA	Water	200.8	
720-68998-2 MS	TS2-E-2015-2	Total/NA	Water	200.8	
720-68998-2 MSD	TS2-E-2015-2	Total/NA	Water	200.8	
720-68998-3	FD-2015-2	Total/NA	Water	200.8	
LCS 580-207361/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-207361/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-207361/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 207526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	200.8	207361
720-68998-2	TS2-E-2015-2	Total/NA	Water	200.8	207361
720-68998-2 DU	TS2-E-2015-2	Total/NA	Water	200.8	207361
720-68998-2 MS	TS2-E-2015-2	Total/NA	Water	200.8	207361
720-68998-2 MSD	TS2-E-2015-2	Total/NA	Water	200.8	207361
720-68998-3	FD-2015-2	Total/NA	Water	200.8	207361
LCS 580-207361/15-A	Lab Control Sample	Total/NA	Water	200.8	207361
LCSD 580-207361/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	207361
MB 580-207361/14-A	Method Blank	Total/NA	Water	200.8	207361

General Chemistry

Analysis Batch: 193675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Pr	ep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	SM 4500 H+ B	
720-68998-1 DU	TS1-E-2015-2	Total/NA	Water	SM 4500 H+ B	
720-68998-2	TS2-E-2015-2	Total/NA	Water	SM 4500 H+ B	
720-68998-3	FD-2015-2	Total/NA	Water	SM 4500 H+ B	
LCS 720-193675/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 193742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	SM 2540D	
720-68998-2	TS2-E-2015-2	Total/NA	Water	SM 2540D	
720-68998-3	FD-2015-2	Total/NA	Water	SM 2540D	
LCS 720-193742/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-193742/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-193742/3	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 299712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	1664A	_
720-68998-2	TS2-E-2015-2	Total/NA	Water	1664A	
720-68998-3	FD-2015-2	Total/NA	Water	1664A	
LCS 440-299712/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-299712/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-299712/1-A	Method Blank	Total/NA	Water	1664A	

Page 12 of 23

QC Association Summary

Client: Weiss Associates TestAmerica Job ID: 720-68998-1 Project/Site: LRTC Stormwater

General Chemistry (Continued)

Analysis Batch: 299762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-68998-1	TS1-E-2015-2	Total/NA	Water	1664A	299712
720-68998-2	TS2-E-2015-2	Total/NA	Water	1664A	299712
720-68998-3	FD-2015-2	Total/NA	Water	1664A	299712
LCS 440-299712/2-A	Lab Control Sample	Total/NA	Water	1664A	299712
LCSD 440-299712/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	299712
MB 440-299712/1-A	Method Blank	Total/NA	Water	1664A	299712

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Client: Weiss Associates Project/Site: LRTC Stormwater

Lab Sample ID: 720-68998-1

Matrix: Water

Client Sample ID: TS1-E-2015-2

Date Collected: 12/03/15 16:15 Date Received: 12/04/15 12:17

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8	_		207361	12/08/15 15:04	MKN	TAL SEA
Total/NA	Analysis	200.8		1	207526	12/09/15 18:00	FCW	TAL SEA
Total/NA	Prep	1664A			299712	12/11/15 07:02	L1A	TAL IRV
Total/NA	Analysis	1664A		1	299762	12/11/15 10:13	LEG	TAL IRV
Total/NA	Analysis	SM 2540D		1	193742	12/07/15 20:46	EYT	TAL PLS
Total/NA	Analysis	SM 4500 H+ B		1	193675	12/04/15 13:57	MJK	TAL PLS

Client Sample ID: TS2-E-2015-2 Lab Sample ID: 720-68998-2 **Matrix: Water**

Date Collected: 12/03/15 15:35

Date Received: 12/04/15 12:17

	Batch	Batch		Dilution	Batch	Prepared	A L 4	1 -1-
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			207361	12/08/15 15:04	MKN	TAL SEA
Total/NA	Analysis	200.8		1	207526	12/09/15 17:10	FCW	TAL SEA
Total/NA	Prep	1664A			299712	12/11/15 07:02	L1A	TAL IRV
Total/NA	Analysis	1664A		1	299762	12/11/15 10:13	LEG	TAL IRV
Total/NA	Analysis	SM 2540D		1	193742	12/07/15 20:46	EYT	TAL PLS
Total/NA	Analysis	SM 4500 H+ B		1	193675	12/04/15 14:08	MJK	TAL PLS

Client Sample ID: FD-2015-2 Lab Sample ID: 720-68998-3 Date Collected: 12/03/15 15:40 **Matrix: Water**

Date Received: 12/04/15 12:17

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			207361	12/08/15 15:04	MKN	TAL SEA
Total/NA	Analysis	200.8		1	207526	12/09/15 18:05	FCW	TAL SEA
Total/NA	Prep	1664A			299712	12/11/15 07:02	L1A	TAL IRV
Total/NA	Analysis	1664A		1	299762	12/11/15 10:13	LEG	TAL IRV
Total/NA	Analysis	SM 2540D		1	193742	12/07/15 20:46	EYT	TAL PLS
Total/NA	Analysis	SM 4500 H+ B		1	193675	12/04/15 14:16	MJK	TAL PLS

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

Certification Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Laboratory: TestAmerica Pleasanton

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16 *

Laboratory: TestAmerica Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Pro		EPA Region	Certification ID	Expiration Date
		•			00 00 10
The following analyte	s are included in this repo	ort, but certification is	s not offered by the go	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	е	
1664A	1664A	Water	SGT-H	HEM	

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS
SM 4500 H+ B	рН	SM	TAL PLS

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022 TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919 TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-68998-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
720-68998-1	TS1-E-2015-2	Water	12/03/15 16:15 12/04/15 12:17
720-68998-2	TS2-E-2015-2	Water	12/03/15 15:35 12/04/15 12:17
720-68998-3	FD-2015-2	Water	12/03/15 15:40 12/04/15 12:17

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Please send analytic results, electronic deliverables and the original chain-of-custody form to: INSTRUCTIONS FOR LAB PERSONNEL:
GeoTracker EDF required?

GeoTracker EDF required?

Specify analytic/prep method and detection limit in report.

Protocol ID/path: Call immediately with any questions or problems. Notify us of any anomalous peaks in GC or other scans J Levin Richmond\03b_Sampling

COC Number:

TestAmerica
1220 Quarry Lane
Pleasanton, CA 94566
Phone: 925-484-1919 ext.137

Client Contact

ajm@weiss.com sab@weiss.com

labresults@weiss.com

Project Manager:

Scott Bourne

Chain of Custody Record

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608	Project ID: 426-	426-2026.01 Task 1.1.3 BPB/AJM	.		HEM)					
		/AJM	* 6		ΙΕΙ	_	_	_		
					r-H			_		
	Sample date(s): 12/3/	12/3/2015	rure.		SGT			_		Page 1 of 1
(510) 450-6000 Phone	Analysis Tu	Analysis Turnaround Time:			64A		_	_		
(510) 547-5043 FAX					A 16			_		The state of the s
Job Name: LRT 2015-2016 Annual Storm Water Sampling		Standard	eren	10B)	(EP.			_		
Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804	(Specify)	(Specify Days or Hours)	aly t e (PA 904						
Sample Identification	Sample Date T	Sample Sample Time Matrix	# of Cont.	pH (El						Sample Specific Notes:
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TS2-E-7015-2	15	1535		メ	<u>*</u> <u>*</u> <u>*</u>					3
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CO-COCOCY CITATION CONTRACT										
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Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₅ ; 5=NaOH; 6= Other	05; 5=N2OH; 6= Other			1	1 1,2 1,4			-		
Special Instructions/QC Requirements & Comments:	Level II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cu, Fe, Ni, Pb, and Zn).	with reporting l	limit and meth	od detect	ion limit. Analyze s	ınd report only the	metals listed a	bove (Al, Cu, Fe	, Ni, Pb, and	Zn).
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Reimquished/by/	Company	Date/Time:	1	Received by	13		m ₂	Company		Date/Tune
	Company:	Date/Time	Š	Received by:	,			Company.		Date/Time:
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Victor Ramo "	† A	12141	s १४ति	Received by.	tyce	S S	<u>ک</u> م	Company	\{\},	Date/Time (75 (2(7)

Samples received from a secured, locked area

1220 Quarry Lane Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:			Lab PM: Smith,	Lab PM: Smith, Micah		Carrier Tra	Carrier Tracking No(s):	COC No: 720-26848.1	
	Phone:			E-Mail:					Page:	
/Receiving				micah	smith@test	micah.smith@testamericainc.com			Page 1 of 1	
Company: TestAmerica Laboratories, Inc						Analy	Analysis Requested		Job #: 720-68998-1	
00,	Due Date Requested: 12/11/2015								Preservation Codes:	Codes:
	TAT Requested (day	s):							B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: CA, 92614-5817			!		HEW				D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3 R - Na2S2SO3
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO#:								G - Amchlor H - Ascorbic Acid	
Email:	.wo #:				(ON					
ct Name: C Stormwater	Project #: 72009078				iossa					w - pn 4-5 Z - other (specify)
Site:	:#MOSS				() de				ં Other:	
Samula Identification . Client ID (I ah ID)	Sample Date	Sample	Sample Type (C=comp,	Matrix (w=water, S=solid, O=wastefoil, DT=Trease A Air)	betellif blei AläMantoria q_Abaat\Abaal		· • · · · · · · · · · · · · · · · · · ·		nedmul/ Isto]	Special Instructions/Note:
	1		1865							
TS1-E-2015-2 (720-68998-1)	12/3/15	16:15 Pacific		Water	×				2	
TS2-E-2015-2 (720-68998-2)	12/3/15	15:35 Pacific		Water	×				2	
FD-2015-2 (720-68998-3)	12/3/15	15:40 Pacific		Water	×				2	
				-						
				-						
				-						
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						-				
										:
Possible Hazard Identification					Sample D	isposal (A fee n	lay be assessed	if samples are □	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	n 1 month)
Oncontinued Dalivarable Remested: 1 II III IV Other (snecify)					Special In	Special Instructions/OC Requirements:	Uisposai by Lab	y Lab	Archive ror	WORKIS
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Client Information (Sub Contract Lab)	Sampler:		į	Lab P Smit	Lab PM: Smith, Micah	;		Car	Carrier Tracking No(s):	No(s):	70	COC No: 720-26846.1	
	Phone:			E-Mail: micah	E-Mail: micah.smith@testamericali		nc.com				77	Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.							Analysis	s Requested	sted		7 5	Job #: 720-68998-1	
Address: 5755 8th Street East, ,	Due Date Requested: 12/11/2015	<u>:</u>			***************************************							Cod	les: M - Hexane
City Tacoma	TAT Requested (days):	ys):			b, Zn l								N - None O - AsNaO2
State, Zip: WA, 98424				1	ħ; [D - Nitric Acid E - NaHSO4 F - MeOH	P - Na2O4S Q - Na2SO3 R - Na2S2SO3
Phone: 253-922-2310(Tel) 253-922-5047(Fax)	PO#				M							2	S - H2SO4 T - TSP Dodecahydrate
	WO#	•			No)							I - Ice J - DI Water	U - Acetone V - MCAA
Project Name: LRTC Stormwater	Project #: 72009078	ļ			es or						***************************************	L-EDA	Z - other (specify)
Site:	SSOW#:				ISD (Y							Other:	
		Sample	Sample Type (C=comp,	Matrix (V=water, S=solid, O=waste/oil,	old Filtered rform MS/N 0.8_CWA/200 0.8						tal Number		
West of the state		/ <u>#\</u>	Preservation Code:	}	X						X	W. C	13/8/43
TS1-E-2015-2 (720-68998-1)	12/3/15	16:15 Pacific		Water	×						**************************************		
TS2-E-2015-2 (720-68998-2)	12/3/15	15:35 Pacific		Water	×		-				المدارة		
FD-2015-2 (720-68998-3)	12/3/15	15:40 Pacific		Water	×						-73		
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Possible Hazard Identification Unconfirmed					Sample	Sample Disposal Return To C	(A fee ma lient	may be assessed if samples Disposal By Lab	assessed if san Disposal By Lab	mples are 	are retained longer Archive For	than	1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)					Special	Special Instruction	s/QC Requirements:	iirements:	İ				
Empty Kit Relinquished by:	,	Date:			Time:				Method of	Method of Shipment:			
Relinquished by: "Hellow Williams and the second se	Date/Time:	8 15	7	Company	Rece	Received by:	· Vaine	P P		Date/Ilme:	16	1100	Company La
Relinquished by	Date/Vime:/			Company	Rece	Received by: *			Į	Date/Time:			Company
Relinquished by:	Date/Time:			Company	Rece	Received by:				Date/Time:			Company
Custody Seals Intact: Custody Seal No.:		ļ			Cool	Cooler Temperature(s) °C and Other Remarks:	re(s) C and C	Other Remar	3/10.0	0			
						***	1		-	<			

Client: Weiss Associates Job Number: 720-68998-1

Login Number: 68998 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Creator: Arauz, Dennis		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Pleasanton

Client: Weiss Associates Job Number: 720-68998-1

List Source: TestAmerica Irvine
List Number: 2
List Creation: 12/08/15 01:01 PM

Creator: Ornelas, Olga

Creator. Orneras, Orga		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Pleasanton

Login Sample Receipt Checklist

Client: Weiss Associates Job Number: 720-68998-1

List Source: TestAmerica Seattle
List Number: 3
List Creation: 12/08/15 02:35 PM

Creator: Vance, Diane R

Question Answer Comment

Radioactivity wasn't checked or is </= background as measured by a survey

meter.

The cooler's custody seal, if present, is intact.

Sample custody seals, if present, are intact.

The cooler or samples do not appear to have been compromised or

tampered with.

Samples were received on ice.

Cooler Temperature is acceptable.

Cooler Temperature is recorded.

COC is present.

COC is filled out in ink and legible.

COC is filled out with all pertinent information.

Is the Field Sampler's name present on COC?

There are no discrepancies between the containers received and the COC.

Samples are received within Holding Time.

Sample containers have legible labels.

Containers are not broken or leaking.

Sample collection date/times are provided.

Appropriate sample containers are used.

Sample bottles are completely filled.

Sample Preservation Verified.

There is sufficient vol. for all requested analyses, incl. any requested

MS/MSDs

Containers requiring zero headspace have no headspace or bubble is

<6mm (1/4").

Multiphasic samples are not present.

Samples do not require splitting or compositing.

Residual Chlorine Checked.

4

4

5

8

9

1 1

12

IS



Calscience



WORK ORDER NUMBER: 16-01-0976

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2015-2016 Annual Storm Water

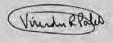
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 01/22/2016 by:

Virendra Patel Project Manager



Email your PM)

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.	1.3
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Work Order Number: 16-01-0976

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7	Chain-of-Custody/Sample Receipt Form	14



Work Order Narrative

Work Order: 16-01-0976 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/15/16. They were assigned to Work Order 16-01-0976.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order: 16-01-0976

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

01/15/16 10:15

PO Number: 426-2026.01 Task 1.1.3

Date/Time Received:

6 Number of

Containers:

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-E-2016-1	16-01-0976-1	01/13/16 09:20	3	Aqueous
FD-2016-1	16-01-0976-2	01/13/16 09:25	3	Aqueous





Weiss AssociatesDate Received:01/15/162200 Powell Street, Suite 925Work Order:16-01-0976Emeryville, CA 94608-1879Preparation:EPA 3510CMethod:EPA 8081A

Units: ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-E-2016-1	16-01-0976-1-A	01/13/16 09:20	Aqueous	GC 44	01/18/16	01/20/16 15:49	160118L03A
Comment(s): - Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>0</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	92		50-135				
2,4,5,6-Tetrachloro-m-Xylene	93		50-135				

FD-2016-1	16-01-0976-2-A	01/13/16 09:25	Aqueous	GC 44	01/18/16	01/20/16 16:03	160118L03A
Comment(s): - Res	ults were evaluated to the MDL (DL), co	oncentrations >=	to the MDL (DL) but < RL (LOC)), if found, are o	qualified with a	a "J" flag.
<u>Parameter</u>	<u>Re</u>	<u>sult</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	9	<u>Qualifiers</u>
Alpha-BHC	NE)	0.10	0.028	1.00		
Beta-BHC	NE)	0.10	0.030	1.00		
Delta-BHC	NE)	0.10	0.029	1.00		
Endosulfan I	NE)	0.10	0.028	1.00		
Endrin Aldehyde	NE)	0.10	0.026	1.00		
Endosulfan II	NE)	0.10	0.027	1.00		
Endosulfan Sulfate	NE)	0.10	0.029	1.00		
Methoxychlor	NE)	0.10	0.025	1.00		
Chlordane	NE)	1.0	0.33	1.00		
Surrogate	Re	<u>c. (%)</u>	Control Limits	<u>Qualifiers</u>			
Decachlorobiphenyl	94		50-135				
2,4,5,6-Tetrachloro-m-2	Xylene 86		50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

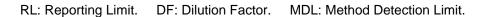
16-01-0976 EPA 3510C EPA 8081A ug/L

01/15/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-529-866	N/A	Aqueous	GC 44	01/18/16	01/20/16 14:52	160118L03A
Comment(s): - Results were evaluated to	to the MDL (DL), cond	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>0</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	97		50-135				
2,4,5,6-Tetrachloro-m-Xylene	76		50-135				





Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

16-01-0976 EPA 3510C EPA 8081A ng/L

01/15/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-E-2016-1	16-01-0976-1-AB	01/13/16 09:20	Aqueous	GC 44	01/19/16	01/21/16 11:27	160119L11
Comment(s): - Results were evaluated t	o the MDL (DL), cond	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	122		50-150				
2,4,5,6-Tetrachloro-m-Xylene	105		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879 Date Received: Work Order: Preparation: Method:

Units:

16-01-0976 EPA 3510C EPA 8081A ng/L

01/15/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026 01 Task 1 1 3

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2026.01 Task 1.1.3	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FD-2016-1	16-01-0976-2-AB	01/13/16 09:25	Aqueous	GC 44	01/19/16	01/21/16 11:41	160119L11
Comment(s): - Results were evaluated to	to the MDL (DL), cond	entrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	118		50-150				
2,4,5,6-Tetrachloro-m-Xylene	103		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

16-01-0976 EPA 3510C EPA 8081A ng/L

01/15/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-6	N/A	Aqueous	GC 44	01/19/16	01/20/16 19:57	160119L11
Comment(s): - Results were evaluated	to the MDL (DL), cor	centrations >=	to the MDL (DL	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Res	<u>ult</u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
<u>Surrogate</u>	Rec	<u>. (%)</u>	Control Limits	<u>Qualifiers</u>			
Decachlorobiphenyl	101		50-150				
2,4,5,6-Tetrachloro-m-Xylene	77		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/15/16 16-01-0976 EPA 3510C **EPA 8081A**

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Quality Control Sample ID	Туре		Matrix	Instru		Date Prepare			LCS/LCSD Ba	tch Number
099-12-529-866	LCS		Aqueous			01/18/16			160118L03A	
099-12-529-866	LCSD		Aqueous	GC 4	4	01/18/16	01/20/1	16 20:11	160118L03A	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
Alpha-BHC	0.5000	0.4486	90	0.5175	104	50-135	36-149	14	0-25	
Gamma-BHC	0.5000	0.4509	90	0.5275	105	50-135	36-149	16	0-25	
Beta-BHC	0.5000	0.4402	88	0.5190	104	50-135	36-149	16	0-25	
Heptachlor	0.5000	0.4142	83	0.4540	91	50-135	36-149	9	0-25	
Delta-BHC	0.5000	0.4815	96	0.5471	109	50-135	36-149	13	0-25	
Aldrin	0.5000	0.3680	74	0.4063	81	50-135	36-149	10	0-25	
Heptachlor Epoxide	0.5000	0.4713	94	0.5162	103	50-135	36-149	9	0-25	
Endosulfan I	0.5000	0.4508	90	0.5067	101	50-135	36-149	12	0-25	
Dieldrin	0.5000	0.4996	100	0.5434	109	50-135	36-149	8	0-25	
4,4'-DDE	0.5000	0.5092	102	0.5404	108	50-135	36-149	6	0-25	
Endrin	0.5000	0.4855	97	0.5534	111	50-135	36-149	13	0-25	
Endrin Aldehyde	0.5000	0.5143	103	0.5601	112	50-135	36-149	9	0-25	
4,4'-DDD	0.5000	0.5068	101	0.5501	110	50-135	36-149	8	0-25	
Endosulfan II	0.5000	0.4818	96	0.5312	106	50-135	36-149	10	0-25	
4,4'-DDT	0.5000	0.4886	98	0.5493	110	50-135	36-149	12	0-25	
Endosulfan Sulfate	0.5000	0.4904	98	0.5431	109	50-135	36-149	10	0-25	
Methoxychlor	0.5000	0.5218	104	0.5769	115	50-135	36-149	10	0-25	

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/15/16 16-01-0976 EPA 3510C **EPA 8081A**

Page 2 of 2

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Туре		Matrix	·	Instrument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-6	LCS		Aqueous	;	GC 44	01/19/16	01/20/	16 20:25	160119L11	
099-16-704-6	LCSD		Aqueous	3	GC 44	01/19/16	01/20/	16 20:40	160119L11	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.		%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	33.35	38.91	117	28.83	86	50-150	33-167	30	0-25	Χ
4,4'-DDD	33.35	49.75	149	35.21	106	50-150	33-167	34	0-25	Χ
4,4'-DDE	33.35	51.14	153	36.65	110	50-150	33-167	33	0-25	ME,X
4,4'-DDT	33.35	51.73	155	35.45	106	50-150	33-167	37	0-25	ME,X
Alpha Chlordane	33.35	45.81	137	32.12	96	50-150	33-167	35	0-25	Χ
Dieldrin	33.35	47.63	143	33.33	100	50-150	33-167	35	0-25	Χ
Gamma Chlordane	33.35	43.12	129	30.32	91	50-150	33-167	35	0-25	Χ
Endrin	33.35	49.98	150	33.96	102	50-150	33-167	38	0-25	Χ
Gamma-BHC	33.35	46.88	141	32.40	97	50-150	33-167	37	0-25	Χ
Heptachlor	33.35	42.24	127	31.06	93	50-150	33-167	30	0-25	Χ
Heptachlor Epoxide	33.35	45.29	136	32.06	96	50-150	33-167	34	0-25	Χ

Total number of LCS compounds: 11 Total number of ME compounds: 2

Total number of ME compounds allowed: 1

LCS ME CL validation result: 'Not Pass (See Narrative)

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 16-01-0976				Page 1 of 1
<u>Method</u>	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1



Glossary of Terms and Qualifiers

Work Order: 16-01-0976 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
00	The comple system trues as his stand to Cilian Cal transforment prior to analyzing

- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Chain of Custody, Dogonal		A A STATE OF THE S		
Chain of Custony Record	· · · · · · · · · · · · · · · · · · ·		PEKSONNEL:	
	Please send analytic results, electronic deliverables and the		Geofracker EDF required?	
Calsciene Environmental Lab 2063 Communacial Circle Suite U	original chain-or-custody form to: Jahraculte@unales com	Specify analy	tection limit in r	
Consord CA 94520	ain@weise com	Notify us of a	pporty alluquy op per jacons and a coccount mine an epoc. Nortify, us of any anomalous neeks in GP or other scans	
Phone: 925-689-9022	sab@weiss.com	Call immedia		
	Project Manager: Scott Bourne	Protocol ID/path:	: JALevin Richmond/03b_Sampling	25
Weiss Associates	Project ID: 426-2026.01 Task 1.1.3			3
2200 Powell Street, Suite 925	Sampled by: AJM			
Emeryville, CA 94608	Sample date(s):		Page 1 of 1	
510) 450-6000 Phone	Analysis Turnaround Time			
510) 547-5043 FAX			SDG number:	
Job Name: LRT 2015-2016 Annual Storm Water Sampling	Standard			
Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804	(Specify Days or Hours)	alyte (El		
Lab ID Sample Identification	Sample Date Time Matrix		Sample Specific Notes:	
/ TS2-E-2016-1	1/13/2016 0920 W	3 X	SEE COMMENTS	
2 FD-2016-1	1/13/2016 0925 W	3 X	SEE COMMENTS	
The state of the s				
	Pielo	Field Filtered (X):		
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₅ ; 5=NaOH; 6= Other	HNO3; 5=NaOH; 6= Other	1		
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting		mit and method detection	imit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-level	_
8081A for each sample).				
- Use ECI #TC 5158 – report Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Endosulian II, Endosulian Sultate, Endrin Aldehyde and Methoxychlor. - Use ECI #TC 6996 – report 2,4'-DDD, 2,4'-DDE, 2,4'-DDE, 4,4'-DDE, 4,4'-DDE, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamm	Chlordane, Delta-BHC, Endosultan I, End !-DDT, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Ald	osultan II, Endosultan Su rin, Alpha Chlordane, Dic	. Use ECI #TC 5158 – report Alpha-BHC, Chlordane, Delta-BHC, Endosulian II, Endosulian Sultate, Endrin Aldehyde and Methoxychlor. Use ECI #TC 6996 – report 2,4'-DDD, 2,4'-DDD, 4,4'-DDD, 4,4'-DDD, 4,4'-DDT, Aldrin, Alpha Chlordane, Dieldrin, Gamma-Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene	
•				•

Return to Contents

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Do!

B

Samples feceived from a secured, locked area

1/13/16 1430

Compared

0 0

Received by: **そんめい**

> 1/13/16 1430 Date/Time: 1/14/16 1000

NPS



800-322-5555 www.gso.com



Ship From

CAL SCIENCE- CONCORD ALAN KEMP 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520

Ship To CEL SAMPLE RECEIVING 7440 LINCOLN WAY **GARDEN GROVE, CA 92841**

COD: \$0.00 Weight: 0 lb(s) Reference: WEISS

Delivery Instructions:

Signature Type: REQUIRED

Tracking #: 530588048



GARDEN GROVE



D92845A



47095247

Print Date: 1/14/2016 2:49 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.



WORK ORDER NUMBER: 16 Page 16 of 16 76

SAMPLE RECEIPT CHECKLIST COOLER / OF /

CLIENT: Weiss Assoc-		DATE: 01 /	15	7 2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 2 - 4 °C (w/ CF): 6 Sample(s) outside temperature criteria (PM/APM contacted by:) Sample(s) outside temperature criteria but received on ice/chilled on same day of Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: Air Filter				•
CUSTODY SEAL: Cooler Present and Intact Present but Not Intact Not Present Sample(s) Present and Intact Present but Not Intact Not Present	□ N/A			836 1050
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete Sampling date Sampling time Matrix Number of containers		Ø	No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested			00000	
Samples received within holding time Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses				
□ Volatile Organics □ Total Metals □ Dissolved Metals Container(s) for certain analysis free of headspace □ Volatile Organics □ Dissolved Gases (RSK-175) □ Dissolved Oxygen (SM 4500) □ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Ha	00) ich)			Z -
Tedlar™ bag(s) free of condensation CONTAINER TYPE: (Trip Blan Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125AGB □ 125AG □ 125AGB □ 125AGB □ 250CGBs □ 250PB □ 250PB □ 500AG □ 500PB ☑ 1AGB □ 1AGBna₂ □ 1AGBs □ 1PB □ 1PBna □ □ □ □ Solid: □ 4ozCGJ □ 8ozCGJ □ 16ozCGJ □ Sleeve (□) □ EnCores® (□) □ Air: □ Tedlar™ □ Canister □ Sorbent Tube □ PUF □ □ Other Matrix (□ Contraction of the state of the	k Lot No GBh	umber: 125AGBp	125PB AGJs ——	
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Preservative: b = buffered, f = filtered, h = HCl, n = HNO ₃ , na = NaOH, na ₂ = Na ₂ S ₂ O ₃ , p = H ₃ Posterior S = H ₂ SO ₄ , u = ultra-pure, znna = Zn(CH ₃ CO ₂) ₂ + NaOH			ed by:/	105E 8r6



Calscience



WORK ORDER NUMBER: 16-01-0975

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2015-2016 Annual Storm Water

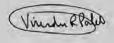
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 01/22/2016 by:

Virendra Patel Project Manager



Email your PM >

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01	Task 1.1.3

Work Order Number: 16-01-0975

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6	Glossary of Terms and Qualifiers	11
7	Chain-of-Custody/Sample Receipt Form	12



Work Order Narrative

Work Order: 16-01-0975 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/15/16. They were assigned to Work Order 16-01-0975.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order:

16-01-0975

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time

01/15/16 10:15

Received:

Number of

3

Containers:

Attn: Scott Bourne

Number of Containers Sample Identification Lab Number **Collection Date and Time** Matrix TS2-I-2016-1 16-01-0975-1 01/13/16 09:15 3 Aqueous



Weiss Associates Date Received: 01/15/16 2200 Powell Street, Suite 925 Work Order: 16-01-0975 Emeryville, CA 94608-1879 Preparation: **EPA 3510C** Method: EPA 8081A

Units: ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2016-1	16-01-0975-1-C	01/13/16 09:15	Aqueous	GC 44	01/18/16	01/20/16 15:35	160118L03A
Comment(s): - Results were evalu	ated to the MDL (DL), con	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	(%)	Control Limits	Qualifiers			
Decachlorobiphenyl	92		50-135				
2,4,5,6-Tetrachloro-m-Xylene	116		50-135				

Method Blank	099-12-52	29-866 N/A	Aqueous	GC 44	01/18/16	01/20/16 14:52	160118L03A
Comment(s):	- Results were evaluated to the MDL (DL), concentrati	ons >= to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	ı "J" flag.
<u>Parameter</u>		Result	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Alpha-BHC		ND	0.10	0.028	1.00		
Beta-BHC		ND	0.10	0.030	1.00		
Delta-BHC		ND	0.10	0.029	1.00		
Endosulfan I		ND	0.10	0.028	1.00		
Endrin Aldehyde		ND	0.10	0.026	1.00		
Endosulfan II		ND	0.10	0.027	1.00		
Endosulfan Sulfat	e	ND	0.10	0.029	1.00		
Methoxychlor		ND	0.10	0.025	1.00		
Chlordane		ND	1.0	0.33	1.00		
<u>Surrogate</u>		Rec. (%)	Control Limits	Qualifiers			
Decachlorobipher	nyl	97	50-135				
2,4,5,6-Tetrachlor	o-m-Xylene	76	50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

2,4,5,6-Tetrachloro-m-Xylene

Date Received: Work Order: Preparation: Method:

Units:

16-01-0975 EPA 3510C EPA 8081A ng/L

01/15/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2016-1	16-01-0975-1-AC	01/13/16 09:15	Aqueous	GC 44	01/19/16	01/21/16 11:13	160119L11
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >=	to the MDL (DI	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	Q	<u>ualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	1.0	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	117		50-150				

50-150

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Surrogate

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

Date Received: Work Order: Preparation: Method:

Units:

16-01-0975 EPA 3510C EPA 8081A

01/15/16

ng/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-704-6	N/A	Aqueous	GC 44	01/19/16	01/20/16 19:57	160119L11
Comment(s): - Results were evaluated to	the MDL (DL), cond	entrations >= t	o the MDL (DL) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resul	<u>lt </u>	<u>RL</u>	MDL	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin	ND	•	1.3	0.50	1.00		
2,4'-DDD	ND	•	1.3	0.50	1.00		
2,4'-DDE	ND	•	1.3	0.50	1.00		
2,4'-DDT	ND	2	2.0	1.0	1.00		
4,4'-DDD	ND	•	1.3	0.50	1.00		
4,4'-DDE	ND	•	1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND	3	3.3	1.7	1.00		
Dieldrin	ND	•	1.3	0.50	1.00		
Gamma Chlordane	ND	;	3.3	1.7	1.00		
Toxaphene	ND	Ę	50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND	•	1.3	0.50	1.00		
Heptachlor Epoxide	ND	•	1.3	0.50	1.00		

Control Limits

50-150

50-150

Qualifiers

Rec. (%)

101

77

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/15/16 16-01-0975 EPA 3510C **EPA 8081A**

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Quality Control Sample ID	Туре		Matrix	Instru		Date Prepare		, ,	LCS/LCSD Ba	tch Number
099-12-529-866	LCS		Aqueous			01/18/16			160118L03A	
099-12-529-866	LCSD		Aqueous	GC 4	4	01/18/16	01/20/1	6 20:11	160118L03A	
<u>Parameter</u>	<u>Spike</u> <u>Added</u>	LCS Conc.	LCS <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.4486	90	0.5175	104	50-135	36-149	14	0-25	
Gamma-BHC	0.5000	0.4509	90	0.5275	105	50-135	36-149	16	0-25	
Beta-BHC	0.5000	0.4402	88	0.5190	104	50-135	36-149	16	0-25	
Heptachlor	0.5000	0.4142	83	0.4540	91	50-135	36-149	9	0-25	
Delta-BHC	0.5000	0.4815	96	0.5471	109	50-135	36-149	13	0-25	
Aldrin	0.5000	0.3680	74	0.4063	81	50-135	36-149	10	0-25	
Heptachlor Epoxide	0.5000	0.4713	94	0.5162	103	50-135	36-149	9	0-25	
Endosulfan I	0.5000	0.4508	90	0.5067	101	50-135	36-149	12	0-25	
Dieldrin	0.5000	0.4996	100	0.5434	109	50-135	36-149	8	0-25	
4,4'-DDE	0.5000	0.5092	102	0.5404	108	50-135	36-149	6	0-25	
Endrin	0.5000	0.4855	97	0.5534	111	50-135	36-149	13	0-25	
Endrin Aldehyde	0.5000	0.5143	103	0.5601	112	50-135	36-149	9	0-25	
4,4'-DDD	0.5000	0.5068	101	0.5501	110	50-135	36-149	8	0-25	
Endosulfan II	0.5000	0.4818	96	0.5312	106	50-135	36-149	10	0-25	
4,4'-DDT	0.5000	0.4886	98	0.5493	110	50-135	36-149	12	0-25	
Endosulfan Sulfate	0.5000	0.4904	98	0.5431	109	50-135	36-149	10	0-25	
Methoxychlor	0.5000	0.5218	104	0.5769	115	50-135	36-149	10	0-25	

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/15/16 16-01-0975 EPA 3510C **EPA 8081A**

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Quality Control Sample ID	Type		Matrix	Instr	ument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-6	LCS		Aqueous	GC -	44	01/19/16	01/20/1	6 20:25	160119L11	
099-16-704-6	LCSD		Aqueous	GC	44	01/19/16	01/20/1	16 20:40	160119L11	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	33.35	38.91	117	28.83	86	50-150	33-167	30	0-25	Χ
4,4'-DDD	33.35	49.75	149	35.21	106	50-150	33-167	34	0-25	Χ
4,4'-DDE	33.35	51.14	153	36.65	110	50-150	33-167	33	0-25	ME,X
4,4'-DDT	33.35	51.73	155	35.45	106	50-150	33-167	37	0-25	ME,X
Alpha Chlordane	33.35	45.81	137	32.12	96	50-150	33-167	35	0-25	Χ
Dieldrin	33.35	47.63	143	33.33	100	50-150	33-167	35	0-25	Χ
Gamma Chlordane	33.35	43.12	129	30.32	91	50-150	33-167	35	0-25	Χ
Endrin	33.35	49.98	150	33.96	102	50-150	33-167	38	0-25	Χ
Gamma-BHC	33.35	46.88	141	32.40	97	50-150	33-167	37	0-25	Χ
Heptachlor	33.35	42.24	127	31.06	93	50-150	33-167	30	0-25	Χ
Heptachlor Epoxide	33.35	45.29	136	32.06	96	50-150	33-167	34	0-25	Χ

Total number of LCS compounds: 11 Total number of ME compounds: 2

Total number of ME compounds allowed: 1

LCS ME CL validation result: 'Not Pass (See Narrative)

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 16-01-0975				Page 1 of 1
Method	Extraction	Chemist ID	<u>Instrument</u>	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1



Glossary of Terms and Qualifiers

Work Order: 16-01-0975 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
Χ	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

							Page 1 of 1		SDG number:			Sample Specific Notes:	SEE COMMENTS		The man for the state of the st	a a a a a a a a a a a a a a a a a a a							(standard 8081A and low-level	Spoxide and Toxaphene	Date/Time:	Date/Time:	1/4/1/ JOS 3	Date/Ime: 101	2 of 14
				The second secon																			ethods for lowest detection limits	a-BHC, Heptachlor, Heptachlor F	Company:	Company:	Ĭ	Company:	
INSTRUCTIONS FOR LAB PERSONNEL:	uired? 🗖 Yes 🖾 No Drequired? 🖾 Yes 🗅 No	Specify analytic/prep method and detection limit in report. Notify us of any anomalous peaks in GC or other scans.	Call immediately with any questions or problems.	J:\Levin Richmond\03b_Sampling																			and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-level	ndrin Aldehyde and Methoxychlor. Endrin, Gamma Chlordane, Gamm:			o and the o		 Sample received from a secured, locked area
INSTRUCTIONS FOI		Specify analytic/prep m Notify us of any anoma	Call immediately with a	Protocol ID/path: J:\							alyte H) səb	of Cont.	3 X								ered (X):	1	nd method detection limit. P	fan II, Endosulfan Sulfate, E. Alpha Chlordane, Dieldrin, I	٣	So Fariage by	1000 To-OMBL	1730 Received by	● Sar
	Please send analytic results, electronic deliverables and the original chain-of-custody form to:			Scott Bourne	426-2026.01 Task 1.1.3	AJM		Analysis Turnaround Time:		Standard	(Specify Days or Hours)	Sample Sample Time Matrix # of	W 0915								Field Filtered (X):		Level II Report. Report with reporting limit a	C, Endosulfan I, Endosulf -DDE, 4,4'-DDT, Aldrin, 4	Date/Time:	113116 1430	٥	Date/Time.	
	Please send analytic results, electroriginal chain-of-custody form to:	labresults@weiss.com	sab@weiss.com	Project Manager: S	Project ID: 4	Sampled by:	Sample date(s):	Analysis			oads)	Sample Date	1/13/2016							-		4=HNO3; 5=NaOH; 6= Other	1	C, Chlordane, Delta-BH0 2,4'-DDT, 4,4'-DDD, 4,4'	Company:	UEISS	Company.	Company:	ed area.
Chain of Custody Record	CalSciene Environmental Lab	5063 Commercial Circle, Suite H	Concolu, CA 34520 Phone: 925-689-9022		Weiss Associates	2200 Powell Street, Suite 925	Emeryville, CA 94608	(510) 450-6000 Phone	(510) 547-5043 FAX	Job Name: LRT 2015-2016 Annual Storm Water Sampling	Address: 402 Wright Avenue, Richmond, CA 94804	Tab ID Sample Identification	TS2-I-20				No. of Contract of		A control of the cont			Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other	Special Instructions/QC Requirements & Comments:	8081A for each sample) Use ECI #TC 5158 - report Alpha-BHC, Beta-BHC, Chlordane, Delta-BHC, Endosulfan II, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor Use ECI #TC 6996 - report 2,4'-DDD, 2,4'-DDT, 4,4'-DDD, 4,4'-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene	Relinguighted by	(1) Mul	Keingurahed W	Latinument of Malley 70 650	92

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NPS



800-322-5555 www.gso.com

Ship From

CAL SCIENCE- CONCORD ALAN KEMP 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520

Ship To CEL SAMPLE RECEIVING 7440 LINCOLN WAY **GARDEN GROVE, CA 92841**

COD: \$0.00 Weight: 0 lb(s) Reference: **WEISS Delivery Instructions:**

Signature Type: REQUIRED

Tracking #: 530588048

GARDEN GROVE

D92845A



47095247

Print Date: 1/14/2016 2:49 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.



Calscience

Page 14 of 14
WORK ORDER NUMBER: 16-01- 0921

SAMPLE RECEIPT CHECKLIST COOLER / OF /

CLIENT: Weiss PSSOC			DATE: 01	115	7 2016
TEMPERATURE: (Criteria: 0.0°C - 6.0°C, Thermometer ID: SC4B (CF: +0.3°C); Temp ☐ Sample(s) outside temperature criteria ☐ Sample(s) outside temperature criteria ☐ Sample(s) received at ambient temperature Ambient Temperature: ☐ Air ☐ Filter	perature (w/o CF): 2 · 4 _ °C a (PM/APM contacted by: a but received on ice/chilled on s	(w/ CF): 2 - 7) same day of sampling	3		ample
		Present □ N/A Present □ N/A	Checke Checke		836 1050
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) recei COC document(s) received complete				No □ □	N/A
☐ No analysis requested ☐ Not relinque Sampler's name indicated on COC			/		
Sample container(s) intact and in good cond Proper containers for analyses requested Sufficient volume/mass for analyses reques			Þ		
Samples received within holding time	eceived within 15-minute holding	time	Ø		<u> </u>
Proper preservation chemical(s) noted on C Unpreserved aqueous sample(s) receive Volatile Organics Total Metals	COC and/or sample container		_		
Container(s) for certain analysis free of head ☐ Volatile Organics ☐ Dissolved Gases ☐ Carbon Dioxide (SM 4500) ☐ Ferrou	s (RSK-175) 🛮 Dissolved Oxyg	gen (SM 4500)	🗖		Ø
Tedlar™ bag(s) free of condensation	······································		🗖		Ø
CONTAINER TYPE: Aqueous: □ VOA □ VOAh □ VOAna₂ □ □ 125PBznna □ 250AGB □ 250CGB □ 2 □ 500PB ☑ 1AGB □ 1AGBna₂ □ 1AGBs Solid: □ 4ozCGJ □ 8ozCGJ □ 16ozCGJ Air: □ Tedlar™ □ Canister □ Sorbent Tub	100PJ □ 100PJna₂ □ 125AGB 250CGBs □ 250PB □ 250PBn □ 1PB □ 1PBna □ □ Sleeve () □ EnCores®	□ 500AGB □ 500, _ □ □ _ () □ TerraCore	25AGBp	125PB AGJ s ———	
Container: A = Amber, B = Bottle, C = Clear, E = Preservative: b = buffered, f = filtered, h = HCl, r	= Envelope, G = Glass, J = Jar, P = n = HNO ₃ , na = NaOH, na ₂ = Na ₂ S ₂	Plastic, and Z = Ziploc/	Resealable B	ag ed by: _	१०८६





TestAmerica

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-69746-1

Client Project/Site: LRT 2015-2016 Annual StormWater

Sampling

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Mink RJ Smit

Authorized for release by: 1/28/2016 1:09:59 PM

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Weiss Associates Project/Site: LRT 2015-2016 Annual StormWater Sampling TestAmerica Job ID: 720-69746-1

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Definitions/Glossary

Client: Weiss Associates TestAmerica Job ID: 720-69746-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

Qualifiers

Metals

Qualifier	Qualifier	Description	

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Н	Sample was prepped or analyzed beyond the specified holding time

Glossary

ND

PQL

QC

RER

RPD

TEF

TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated

Case Narrative

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Job ID: 720-69746-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-69746-1

Comments

No additional comments.

Receipt

The samples were received on 1/14/2016 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

Receipt Exceptions

The following samples were received outside of holding time for pH: TS1-E-2016-1,TS2-E-2016-1, FD-2016-1, TS3-E-2016-1 and SW-11-2016-1.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 1664A: The method blank (MB) and laboratory control standard (LCS) analyzed for batch 320711 were in control, but were analyzed as HEM, rather than SGT-HEM, since the sample was a non-detect for HEM it did not require the silica gel treatment: TS1-E-2016-1 (720-69746-1), TS2-E-2016-1 (720-69746-2), FD-2016-1 (720-69746-3), TS3-E-2016-1 (720-69746-4) and SW-11-2016-1 (720-69746-5).

Method(s) SM 2540D: The method blank for batch 195689 contained TSS above the reporting limit (RL). Most of the samples associated with this method blank do not contained the target compound; therefore, re-analysis of samples were not performed. Samples TS3-E-2016-1 (720-69746-4) and SW-11-2016-1 (720-69746-5) do have a detection of the target compound, however, there is no sample volume remaining for re-analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Client Sample ID: TS1-E-2016-1

Lab Sample ID: 720-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0056		0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.011	J	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.00060	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0015		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.042		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	1.1	J	5.2	0.51	mg/L	1		1664A	Total/NA
HEM	1.1	JB	5.2	0.56	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pН	7.47	Н	0.100	0.100	SU	1	_	9040B	Total/NA

Client Sample ID: TS2-E-2016-1

Lab Sample ID: 720-69746-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.013		0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.026	J	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.00075	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0062		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.045		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	1.5	J	5.1	0.50	mg/L	1		1664A	Total/NA
HEM	1.5	JB	5.1	0.56	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	7.66	Н	0.100	0.100	SU	1	_	9040B	Total/NA

Client Sample ID: FD-2016-1

Lab Sample ID: 720-69746-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.079		0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.069		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0012	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.028		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.11		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	2.1	J	5.1	0.50	mg/L	1		1664A	Total/NA
HEM	2.1	JB	5.1	0.55	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.71	Н	0.100	0.100	SU		_	9040B	Total/NA

Client Sample ID: TS3-E-2016-1

Lab Sample ID: 720-69746-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0018	J	0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.057		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0013	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0018		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.054		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	2.0	J	5.1	0.50	mg/L	1		1664A	Total/NA
HEM	2.0	JB	5.1	0.56	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.11	H	0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	1.8	В	1.0	1.0	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

1/28/2016

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Detection Summary

Client: Weiss Associates

Client Sample ID: SW-11-2016-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Lab Sample ID: 720-69746-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0022		0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.14		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0033		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0036		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.093		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	1.7	J	5.0	0.49	mg/L	1		1664A	Total/NA
HEM	1.7	JB	5.0	0.54	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.70	H	0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	11	В	1.0	1.0	mg/L	1		SM 2540D	Total/NA

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69746-1

TestAmerica Job ID: 720-69746-1

Matrix: Water

Date Collected: 01/13/16 08:50 Date Received: 01/14/16 15:20

Client Sample ID: TS1-E-2016-1

Method: 200.8 - Metals (ICP/M	S)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/18/16 08:52	01/19/16 13:25	1
Copper	0.0056		0.0020	0.00060	mg/L		01/18/16 08:52	01/19/16 13:25	1
Iron	0.011	J	0.040	0.0058	mg/L		01/18/16 08:52	01/19/16 13:25	1
Nickel	0.00060	J	0.0030	0.00040	mg/L		01/18/16 08:52	01/19/16 13:25	1
Lead	0.0015		0.00040	0.000034	mg/L		01/18/16 08:52	01/19/16 13:25	1
Zinc	0.042		0.0070	0.0019	mg/L		01/18/16 08:52	01/19/16 13:25	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	1.1	J	5.2	0.51	mg/L		01/25/16 15:27	01/25/16 17:10	1
HEM	1.1	JB	5.2	0.56	mg/L		01/25/16 15:27	01/25/16 17:10	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.47	Н	0.100	0.100	SU			01/14/16 21:57	1
Total Suspended Solids	<1.0		1.0	1.0	mg/L			01/15/16 16:17	1

TestAmerica Pleasanton

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Client: Weiss Associates TestAmerica Job ID: 720-69746-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Client Sample ID: TS2-E-2016-1

Date Collected: 01/13/16 09:20

Matrix: Water Date Received: 01/14/16 15:20

Method: 200.8 - Metals (ICI	P/MS)							
Analyte	Result Qualifie	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10	0.10	0.10	mg/L		01/18/16 08:52	01/19/16 13:30	1
Copper	0.013	0.0020	0.00060	mg/L		01/18/16 08:52	01/19/16 13:30	1
Iron	0.026 J	0.040	0.0058	mg/L		01/18/16 08:52	01/19/16 13:30	1
Nickel	0.00075 J	0.0030	0.00040	mg/L		01/18/16 08:52	01/19/16 13:30	1
Lead	0.0062	0.00040	0.000034	mg/L		01/18/16 08:52	01/19/16 13:30	1
Zinc	0.045	0.0070	0.0019	mg/L		01/18/16 08:52	01/19/16 13:30	1
- General Chemistry								
Analyte	Result Qualifie	r RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	1.5 J	5.1	0.50	mg/L		01/25/16 15:33	01/25/16 17:14	1
HEM	1.5 JB	5.1	0.56	mg/L		01/25/16 15:33	01/25/16 17:14	1
Analyte	Result Qualifie	r RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.66 H	0.100	0.100	SU			01/14/16 22:03	1
Total Suspended Solids	<1.0	1.0	1.0	mg/L			01/15/16 16:17	1

Lab Sample ID: 720-69746-2

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69746-3

TestAmerica Job ID: 720-69746-1

Matrix: Water

Client Sample ID: FD-2016-1 Date Collected: 01/13/16 09:25 Date Received: 01/14/16 15:20

Method: 200.8 - Metals (IC Analyte	CP/MS) Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10	0.10	0.10	mg/L		01/18/16 08:52	01/19/16 13:34	1
Copper	0.079	0.0020	0.00060	mg/L		01/18/16 08:52	01/19/16 13:34	1
Iron	0.069	0.040	0.0058	mg/L		01/18/16 08:52	01/19/16 13:34	1
Nickel	0.0012 J	0.0030	0.00040	mg/L		01/18/16 08:52	01/19/16 13:34	1
Lead	0.028	0.00040	0.000034	mg/L		01/18/16 08:52	01/19/16 13:34	1
Zinc	0.11	0.0070	0.0019	mg/L		01/18/16 08:52	01/19/16 13:34	1
	• • • • • • • • • • • • • • • • • • • •	0.00.0	0.00.0	9/=		0.7.07.00.00.02		

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	2.1	J	5.1	0.50	mg/L		01/25/16 15:38	01/25/16 17:18	1
HEM	2.1	JB	5.1	0.55	mg/L		01/25/16 15:38	01/25/16 17:18	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.71	H	0.100	0.100	SU			01/14/16 22:08	1
Total Suspended Solids	<1.0		1.0	1.0	mg/L			01/15/16 16:17	1

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69746-4

TestAmerica Job ID: 720-69746-1

Matrix: Water

Client Sample ID: TS3-E-2016-1 Date Collected: 01/13/16 08:30

Date Received: 01/14/16 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/18/16 08:52	01/19/16 13:39	1
Copper	0.0018	J	0.0020	0.00060	mg/L		01/18/16 08:52	01/19/16 13:39	1
Iron	0.057		0.040	0.0058	mg/L		01/18/16 08:52	01/19/16 13:39	1
Nickel	0.0013	J	0.0030	0.00040	mg/L		01/18/16 08:52	01/19/16 13:39	1
Lead	0.0018		0.00040	0.000034	mg/L		01/18/16 08:52	01/19/16 13:39	1
Zinc	0.054		0.0070	0.0019	mg/L		01/18/16 08:52	01/19/16 13:39	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	2.0	J	5.1	0.50	mg/L		01/25/16 15:44	01/25/16 17:22	1
HEM	2.0	JB	5.1	0.56	mg/L		01/25/16 15:44	01/25/16 17:22	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.11	H	0.100	0.100	SU			01/14/16 22:12	1
Total Suspended Solids	1.8	В	1.0	1.0	mg/L			01/15/16 16:17	1

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69746-5

TestAmerica Job ID: 720-69746-1

Matrix: Water

Client Sample ID: SW-11-2016-1

Date Collected: 01/13/16 07:55 Date Received: 01/14/16 15:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/18/16 08:52	01/19/16 13:44	1
Copper	0.0022		0.0020	0.00060	mg/L		01/18/16 08:52	01/19/16 13:44	1
Iron	0.14		0.040	0.0058	mg/L		01/18/16 08:52	01/19/16 13:44	1
Nickel	0.0033		0.0030	0.00040	mg/L		01/18/16 08:52	01/19/16 13:44	1
Lead	0.0036		0.00040	0.000034	mg/L		01/18/16 08:52	01/19/16 13:44	1
Zinc	0.093		0.0070	0.0019	mg/L		01/18/16 08:52	01/19/16 13:44	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	1.7	J	5.0	0.49	mg/L		01/25/16 15:49	01/25/16 17:26	1
HEM	1.7	JB	5.0	0.54	mg/L		01/25/16 15:49	01/25/16 17:26	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.70	H	0.100	0.100	SU			01/14/16 22:16	1
Total Suspended Solids	11	В	1.0	1.0	mg/L			01/15/16 16:17	1

TestAmerica Job ID: 720-69746-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

MR MR

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-209712/14-A

Matrix: Water Analysis Batch: 209817

Client: Weiss Associates

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 209712

	1410	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/18/16 08:53	01/19/16 12:21	1
Copper	<0.00060		0.0020	0.00060	mg/L		01/18/16 08:53	01/19/16 12:21	1
Iron	<0.0058		0.040	0.0058	mg/L		01/18/16 08:53	01/19/16 12:21	1
Nickel	<0.00040		0.0030	0.00040	mg/L		01/18/16 08:53	01/19/16 12:21	1
Lead	<0.000034		0.00040	0.000034	mg/L		01/18/16 08:53	01/19/16 12:21	1
Zinc	<0.0019		0.0070	0.0019	mg/L		01/18/16 08:53	01/19/16 12:21	1

Lab Sample ID: LCS 580-209712/15-A

Matrix: Water

Analysis Batch: 209817

Prep Type: Total/NA Prep Batch: 209712

%Rec.

Client Sample ID: Lab Control Sample

LCS LCS Spike **Analyte** Added Result Qualifier Unit D %Rec Limits Aluminum 1.00 1.06 mg/L 106 85 - 115 Copper 0.100 0.0930 85 - 115 mg/L 93 9.55 Iron 10.0 mg/L 96 85 - 115 Nickel 0.100 0.0923 mg/L 92 85 - 115 Lead 0.100 0.0987 mg/L 99 85 - 115 Zinc 0.100 0.0922 mg/L 92 85 - 115

Lab Sample ID: LCSD 580-209712/16-A

Matrix: Water

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 209817							Prep Ba	itcn: 20	J9/12
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aluminum	1.00	1.03		mg/L		103	85 - 115	3	20
Copper	0.100	0.0948		mg/L		95	85 - 115	2	20
Iron	10.0	9.45		mg/L		95	85 - 115	1	20
Nickel	0.100	0.0921		mg/L		92	85 - 115	0	20
Lead	0.100	0.0992		mg/L		99	85 - 115	1	20
Zinc	0.100	0.0924		mg/L		92	85 - 115	0	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-320710/1-A

Matrix: Water

Analysis Batch: 320711

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 320710

MB MB Analyte Result Qualifier RL **MDL** Unit **Prepared** Analyzed Dil Fac 5.0 01/25/16 13:50 01/25/16 16:00 HEM 1.60 J 0.54 mg/L

Lab Sample ID: LCS 500-320710/2-A

Matrix: Water

Analysis Batch: 320711

Client Sample ID: Lab Control Sample Prep Type: Total/NA **Prep Batch: 320710**

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit D %Rec Limits HEM 40.0 38.5 mg/L 96 78 - 114

TestAmerica Pleasanton

TestAmerica Job ID: 720-69746-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Method: 9040B - pH

Client: Weiss Associates

Lab Sample ID: LCS 720-195606/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 195606

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 7.00 SU 99 рН 6.950 99 - 101

Lab Sample ID: 720-69746-1 DU Client Sample ID: TS1-E-2016-1 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 195606

Sample Sample DU DU **RPD** Result Qualifier **RPD** Analyte Result Qualifier Limit Unit SU pН 7.47 H 7.520 0.7

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 720-195689/3 Client Sample ID: Method Blank Prep Type: Total/NA **Matrix: Water**

Analysis Batch: 195689

MB MB Analyte Result Qualifier RL **RL Unit** Prepared Analyzed Dil Fac **Total Suspended Solids** 3.30 1.0 1.0 mg/L 01/15/16 16:17

Lab Sample ID: LCS 720-195689/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 195689

LCS LCS Spike %Rec. Added Result Qualifier %Rec Limits Unit **Total Suspended Solids** 500 479 96 69 - 117 mg/L

Lab Sample ID: LCSD 720-195689/2 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 195689

LCSD LCSD **RPD** Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 500 Total Suspended Solids 448 90 69 - 117 mg/L

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Metals

Prep Batch: 209712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	200.8	
720-69746-2	TS2-E-2016-1	Total/NA	Water	200.8	
720-69746-3	FD-2016-1	Total/NA	Water	200.8	
720-69746-4	TS3-E-2016-1	Total/NA	Water	200.8	
720-69746-5	SW-11-2016-1	Total/NA	Water	200.8	
LCS 580-209712/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-209712/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-209712/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 209817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	200.8	209712
720-69746-2	TS2-E-2016-1	Total/NA	Water	200.8	209712
720-69746-3	FD-2016-1	Total/NA	Water	200.8	209712
720-69746-4	TS3-E-2016-1	Total/NA	Water	200.8	209712
720-69746-5	SW-11-2016-1	Total/NA	Water	200.8	209712
LCS 580-209712/15-A	Lab Control Sample	Total/NA	Water	200.8	209712
LCSD 580-209712/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	209712
MB 580-209712/14-A	Method Blank	Total/NA	Water	200.8	209712

General Chemistry

Analysis Batch: 195606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	9040B	 :
720-69746-1 DU	TS1-E-2016-1	Total/NA	Water	9040B	
720-69746-2	TS2-E-2016-1	Total/NA	Water	9040B	
720-69746-3	FD-2016-1	Total/NA	Water	9040B	
720-69746-4	TS3-E-2016-1	Total/NA	Water	9040B	
720-69746-5	SW-11-2016-1	Total/NA	Water	9040B	
LCS 720-195606/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 195689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	SM 2540D	
720-69746-2	TS2-E-2016-1	Total/NA	Water	SM 2540D	
720-69746-3	FD-2016-1	Total/NA	Water	SM 2540D	
720-69746-4	TS3-E-2016-1	Total/NA	Water	SM 2540D	
720-69746-5	SW-11-2016-1	Total/NA	Water	SM 2540D	
LCS 720-195689/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-195689/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-195689/3	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 320710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	1664A	
720-69746-2	TS2-E-2016-1	Total/NA	Water	1664A	
720-69746-3	FD-2016-1	Total/NA	Water	1664A	
720-69746-4	TS3-E-2016-1	Total/NA	Water	1664A	
720-69746-5	SW-11-2016-1	Total/NA	Water	1664A	

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QC Association Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

General Chemistry (Continued)

Prep Batch: 320710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-320710/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-320710/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 320711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69746-1	TS1-E-2016-1	Total/NA	Water	1664A	320710
720-69746-2	TS2-E-2016-1	Total/NA	Water	1664A	320710
720-69746-3	FD-2016-1	Total/NA	Water	1664A	320710
720-69746-4	TS3-E-2016-1	Total/NA	Water	1664A	320710
720-69746-5	SW-11-2016-1	Total/NA	Water	1664A	320710
LCS 500-320710/2-A	Lab Control Sample	Total/NA	Water	1664A	320710
MB 500-320710/1-A	Method Blank	Total/NA	Water	1664A	320710

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Client Sample ID: TS1-E-2016-1

Date Collected: 01/13/16 08:50 Date Received: 01/14/16 15:20

Lab Sample ID: 720-69746-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209712	01/18/16 08:52	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209817	01/19/16 13:25	FCW	TAL SEA
Total/NA	Prep	1664A			320710	01/25/16 15:27	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320711	01/25/16 17:10	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 21:57	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195689	01/15/16 16:17	EYT	TAL PLS

Client Sample ID: TS2-E-2016-1

Date Collected: 01/13/16 09:20

Date Received: 01/14/16 15:20

Lab Sample ID: 720-69746-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209712	01/18/16 08:52	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209817	01/19/16 13:30	FCW	TAL SEA
Total/NA	Prep	1664A			320710	01/25/16 15:33	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320711	01/25/16 17:14	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:03	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195689	01/15/16 16:17	EYT	TAL PLS

Client Sample ID: FD-2016-1

Date Collected: 01/13/16 09:25

Date Received: 01/14/16 15:20

Lab Sample	ID: 720-69746-3
	Matrix: Water

Prep Type Total/NA Total/NA	Batch Type Prep	Batch Method 200.8 200.8	Run	Dilution Factor			Analyst MKN	Lab TAL SEA TAL SEA
Total/NA Total/NA	Analysis Prep Analysis	200.6 1664A 1664A		1	320710	01/25/16 15:38 01/25/16 17:18	SSF	TAL CHI TAL CHI
Total/NA Total/NA	Analysis Analysis	9040B SM 2540D		1 1		01/14/16 22:08 01/15/16 16:17		TAL PLS TAL PLS

Client Sample ID: TS3-E-2016-1	Lab Sample ID: 720-69746-4
Date Collected: 01/13/16 08:30	Matrix: Water
Date Received: 01/14/16 15:20	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209712	01/18/16 08:52	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209817	01/19/16 13:39	FCW	TAL SEA
Total/NA	Prep	1664A			320710	01/25/16 15:44	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320711	01/25/16 17:22	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:12	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195689	01/15/16 16:17	EYT	TAL PLS

TestAmerica Pleasanton

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Lab Chronicle

Client: Weiss Associates TestAmerica Job ID: 720-69746-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Client Sample ID: SW-11-2016-1

Lab Sample ID: 720-69746-5 Date Collected: 01/13/16 07:55

Matrix: Water

Date Received: 01/14/16 15:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8	 -		209712	01/18/16 08:52	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209817	01/19/16 13:44	FCW	TAL SEA
Total/NA	Prep	1664A			320710	01/25/16 15:49	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320711	01/25/16 17:26	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:16	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195689	01/15/16 16:17	EYT	TAL PLS

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Program		EPA Region	Certification ID 2496	Expiration Date 01-31-16 *
Analysis Method	Prep Method	Matrix	Analyte	9	

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-16
California	State Program	9	2903	04-30-16
Georgia	State Program	4	N/A	04-30-16
Georgia	State Program	4	939	04-30-16
Hawaii	State Program	9	N/A	04-30-16
Illinois	NELAP	5	100201	04-30-16
Indiana	State Program	5	C-IL-02	04-30-16
lowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	01-31-16 *
Kentucky (UST)	State Program	4	66	04-30-16
Kentucky (WW)	State Program	4	KY90023	12-31-16
Massachusetts	State Program	1	M-IL035	06-30-16
Mississippi	State Program	4	N/A	04-30-16
New York	NELAP	2	IL00035	04-01-16
North Carolina (WW/SW)	State Program	4	291	12-31-16
North Dakota	State Program	8	R-194	04-30-16
Oklahoma	State Program	6	8908	08-31-16
South Carolina	State Program	4	77001	04-30-16
USDA	Federal		P330-15-00038	02-11-18
Wisconsin	State Program	5	999580010	08-31-16
Wyoming	State Program	8	8TMS-Q	04-30-16

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-16
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL CHI
9040B	рН	SW846	TAL PLS
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69746-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-69746-1	TS1-E-2016-1	Water	01/13/16 08:50	01/14/16 15:20
720-69746-2	TS2-E-2016-1	Water	01/13/16 09:20	01/14/16 15:20
720-69746-3	FD-2016-1	Water	01/13/16 09:25	01/14/16 15:20
720-69746-4	TS3-E-2016-1	Water	01/13/16 08:30	01/14/16 15:20
720-69746-5	SW-11-2016-1	Water	01/13/16 07:55	01/14/16 15:20

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Chain of Custody Record

1/28/2016

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Please send analytic results, electronic deliverables and the original chain-of-custody form to: labresults@weiss.com
ajm@weiss.com INSTRUCTIONS FOR LAB PERSONNEL:
GeoTracker EDF required?

Ves Notify us of any anomalous peaks in GC or other scans Specify analytic/prep method and detection limit in report. Equis 4-file EDWEDD required? X Yes D No N N

Date/Time	Company	m Mud ex	S In	erved by	Received by	Date/Time to		Company	Reimonation is the state of the
	Company.		J.	Bucceived by.		Date/Time:		Company.	Relinguished MM
	O いだいS		(1)	FELDAE	1430 Kee	Uli3 16		Company Cass	Kelmigaspher ov / MM
5, 416	and report only the metals usted above (Al, Cu, FG, Nt, F6, and Zal).		in mar. An	a detection	II and memo	reporung un	eport with	Level 11 керогі, керогі win reporting imit and method detection imit. Analyze	uchons/OC Requirements & Comments:
\vdash			1,2 1,4			. . .	her	NO ₃ ; 5=NaOH; 6= Ort	IΒ
n of Ci	/20-69/46 Chain of Custody				Field Effered (X):				
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<u> </u>			X	XX	5	W	0755	1/13/2016	SW-11-2016-1
			X	X	ن ا	¥	0830	1/13/2016	TS3-E-2016-1
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			X X	XX	5	W	0920	1/13/2016	TS2-E-2016-1
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***************************************	A A A A A A A A A A A A A A A A A A A	(EPA	Oıl &		# of Cont.	Sample Matrix	Sample Time	Sample Date	Sample Identification
		200 8	Greas Metals	PA 90 Suspei	alyte	Hours)	(Specify Days or Hours)	(S _I	Address: Levin Richmond Terminal, 402 Wright Avenue, Ruchmond, CA 94804
		ICP-	e (EF		(Me	ď	Standard		Job Name: LRT 2015-2016 Annual Storm Water Sampling
		MS)	PA 10		thör				(510) 547-5043 FAX
			564A	ds (S	EID.	Analysis Turnaround Time:	s Turnare	Analysi	(510) 450-6000 Phone
			SG'	M 2			1/13/2016	Sample date(s):	Emeryville, CA 94608
			T-HI	540T			AM	Sampled by:	2200 Powell Street, Suite 925
))		426-2026.01 Task 1.1.3	426-2026.0	Project ID:	Weiss Associates
1		J:\Levin Richmond\03b_Sempimg		Protocol ID/path:	Prot	1e	Scott Bourne	Project Manager:	Client Contact
		y questions or problems.	Call immediately with any questi	Call immed				sab@weiss.com	19 ext.137
		Notify us of any anomalous peaks in GC or other scans	of any anomalo	Notefy us o			•	aim@weiss.com	566
		tection limit in repo	alvtic/nren me	Specify and			m out roum or.	labresults@weiss.com	1220 Ongrey Lane
		required? X Yes C No	Equis 4-file EDWEDD required?	Equis 4-fi	SS ALIG LIC	OTTO OTTO	ody form to:	riease sent analytic results, electronic original chain-of-custody form to:	Toot A maries

Samples received from a secured, locked area

A [2] Samples peleased to a secured, locked area.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Chain of Custody Record



THE FRACER IN ENVIRONMENTAL TESTING

Phone (925) 484-1919 Fax (925) 600-30	02												_							***************************************	
Client Information (Sub Contract Lab)		Sm					th, Micah						c	Carrier Tracking No(s):						COC No: 720-27357.1	
Glient Gontact:———————————————————————————————————	Phone: E-Mail: micah.					smith	n@te	stame	ricaino	.com						- '-		=====	Page 1 of 1	PM = h = object - o-d	
Company: TestAmerica Laboratories, Inc.									ļ	Anal	ysis	Requ	este	d					Job #: 720-69746-1		
Address:		Due Date Request	ed:				()	П												Preservation Codes:	
2417 Bond Street, ,		1/21/2010	2001-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Spile of Co. Ford cont.	-5-CE (1912	The second			and the second	- mi-m	76 2 523, 27	Participant		m (Carrie	-			100		Hexane
City: University Park		TAT Requested (d	ays):			, 44PB /													,		None AsNaO2 Na2O4S
State, Zip: IL, 60484	_																		. a.n.a.	E-NaHSO4 Q-N	Na2SO3 Na2SO3 Na2S2SO3
Phone: 708-534-5200(Tel) 708-534-5211(Fa)	64003	PO#:				ြို့		HEM)											(1, e√3e ₀ /0	G - Amchlor S - H H - Ascorbic Acid T - T	12SO4 SP Dodecahydrate
Email:		WO#:				Nuo.	(o)	SGT-											S	J-DIWater V-M	Acetone MCAA
Project Name: LRTC Stormwater	-	Project #: 72009078				ڪڙ ڇ	30.56	SPE TPH (SGT-HEM)											confaine		ph 4-5 ther (specify)
Site:	720-69746 COC	SSOW#:	-		 		δ	A_SPI	:					-					ot con	Other:	
Sample Identification - Client ID (Lab II	D)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, S≃solid, O=waste/oll BT≃Tissue, A=	Field Filtered S	Perform MS/MSD (Yes or No)	1664A_Calc/1664A_											Total Number o	Special Instruc	ctions/Note:
			\sim		ation Code			. 3	8	3	3	pons Etems	-	100		1			X		- 5
TS1-E-2016-1 (720-69746-1)		1/13/16	08:50 Pacific		Water			X										2		P11.21.1.	
TS2-E-2016-1 (720-69746-2)		1/13/16	Pacific 09:20 Pacific		Water			Х										1	3	112/10	
FD-2016-1 (720-69746-3)		1/13/16	09:25 Pacific		Water			Х											B	1 '	
TS3-E-2016-1 (720-69746-4)		1/13/16	08:30 Pacific		Water	╧		х										1/	В		
SW-11-2016-1 (720-69746-5)		1/13/16	07:55 Pacific		Water		Ш	Х	<u> </u>						_			V	3		
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Possible Hazard Identification								nn/s	Diana	202///	A for	may '	20,000	05500	lif so	mpla	0.00	a rof	alne	ed longer than 1 mont	th)
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Unconfirmed Deliverable Requested: I, II, III, IV, Other	(specify)						Spe			<i>To Clie</i> tions/C		equire	<i>Disj</i> ments:	oosal E	sy La	D		<u> </u>	vrcni	ve For Mo	onths
Empty Kit Relinquished by:			Date:			Tia	me:		00			1		Met	nod of	Shlpm	ent:				
Relinquished by:	C	Date/Time:	(1.)	430	Company			Recei	PU	Ini	$\frac{1}{\lambda}$	1/n	at	5		Daje/	ime	1/1	'n	0730	2 FAIT
Relinquished by:		Date/Time/	'W 		Company			Recei	ived by:	<i></i>	<	7 -	<u> </u>			Date/	Timer	/ / 1	<u></u> _	Comp	pany
Relinquished by:		Date/Time:			Company		_	Recei	ived by:					,		Date/	Time:			Comp	pany
Custody Seals Intact: Custody Seal N Δ Yes Δ No	lo.:	<u> </u>				,	_	Coole	er Temp	erature(s)°C a	nd Othe	er Rema	rks:		<u> </u>				-0.1	

Page 22 of 25

1/28/2016

Client: Weiss Associates Job Number: 720-69746-1

Login Number: 69746 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question Answer Comment Radioactivity wasn't checked or is = background as measured by a survey meter.</td N/A The cooler's custody seal, if present, is intact. N/A
meter. The cooler's custody seal, if present, is intact. N/A
and the second s
Sample custody seals, if present, are intact. N/A
The cooler or samples do not appear to have been compromised or True tampered with.
Samples were received on ice.
Cooler Temperature is acceptable.
Cooler Temperature is recorded. True
COC is present. True
COC is filled out in ink and legible.
COC is filled out with all pertinent information.
Is the Field Sampler's name present on COC?
There are no discrepancies between the containers received and the COC. True
Samples are received within Holding Time.
Sample containers have legible labels.
Containers are not broken or leaking.
Sample collection date/times are provided.
Appropriate sample containers are used. True
Sample bottles are completely filled. True
Sample Preservation Verified. N/A
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs True
Containers requiring zero headspace have no headspace or bubble is True <6mm (1/4").
Multiphasic samples are not present.
Samples do not require splitting or compositing.
Residual Chlorine Checked. N/A

TestAmerica Pleasanton

Client: Weiss Associates Job Number: 720-69746-1

List Source: TestAmerica Chicago
List Number: 3
List Creation: 01/18/16 07:50 AM

Creator: Scott, Sherri L

Creator: Scott, Sherri L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	-0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica Pleasanton

Client: Weiss Associates Job Number: 720-69746-1

List Source: TestAmerica Seattle
List Number: 2
List Creation: 01/16/16 01:00 PM

Creator: Luna, Francisco J

Greator: Luna, Francisco J		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR2 9.2c/9.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-69743-1

Client Project/Site: LRT 2015-2016 Annual StormWater

Sampling

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Minch RJ Sono

Authorized for release by: 1/28/2016 12:57:46 PM

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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TestAmerica Pleasanton 1/28/2016

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Sample Summary	18
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Definitions/Glossary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Reporting Limit or Requested Limit (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 720-69743-1

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Qualifiers

General Chemistry

Qualitier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Н	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio

TestAmerica Pleasanton

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1/28/2016

Case Narrative

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Job ID: 720-69743-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-69743-1

Comments

No additional comments.

Receipt

The samples were received on 1/14/2016 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

Receipt Exceptions

The following samples were received outside of holding time for pH: TS1-I-2016-1, TS2-I-2016-1, TS3-I-2016-1.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 1664A: The method blank (MB) and laboratory control standard (LCS) analyzed for batch 320412 were in control, but were analyzed as HEM, rather than SGT-HEM, since the sample was a non-detect for HEM it did not require the silica gel treatment: TS1-I-2016-1 (720-69743-1).

Method(s) 1664A: The method blank (MB) and laboratory control standard (LCS) analyzed for batch 320434 were in control, but were analyzed as HEM, rather than SGT-HEM, since the samples were non-detect for HEM they did not require the silica gel treatment: TS2-I-2016-1 (720-69743-2).

Method(s) SM 2540D: The laboratory control sample duplicate (LCSD) RPD% for analytical batch 720-195768 was outside acceptance limits for TSS. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Client Sample ID: TS1-I-2016-1 Lab Sample ID: 720-69743-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.43		0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.0073		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	1.5		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0042		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.032		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.13		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	2.5	J	5.0	0.49	mg/L	1		1664A	Total/NA
HEM	2.5	JB	5.0	0.54	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.76	H	0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	140		5.0	5.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: TS2-I-2016-1 Lab Sample ID: 720-69743-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.37		0.10	0.10	mg/L		_	200.8	Total/NA
Copper	0.011		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	1.3		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0032		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.022		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.12		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	3.3	J	5.0	0.49	mg/L	1		1664A	Total/NA
HEM	3.3	J F1 B	5.0	0.54	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.82	Н	0.100	0.100	SU	1	_	9040B	Total/NA
Total Suspended Solids	98		4.0	4.0	ma/L	1		SM 2540D	Total/NA

Client Sample ID: TS3-I-2016-1 Lab Sample ID: 720-69743-3

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.24		0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.011		0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	0.62		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0049		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.019		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.080		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	3.5 J	JB	5.2	0.51	mg/L	1		1664A	Total/NA
Analyte	Result C	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	6.61 F		0.100	0.100	SU	1	_	9040B	Total/NA
Total Suspended Solids	49 *		4.3	4.3	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69743-1

Matrix: Water

TestAmerica Job ID: 720-69743-1

Date Collected: 01/13/16 09:00 Date Received: 01/14/16 15:20

Client Sample ID: TS1-I-2016-1

Method: 200.8 - Metals (ICP/M Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.43		0.10	0.10	mg/L		01/18/16 09:32	01/20/16 09:55	1
Copper	0.0073		0.0020	0.00060	mg/L		01/18/16 09:32	01/20/16 09:55	1
Iron	1.5		0.040	0.0058	mg/L		01/18/16 09:32	01/20/16 09:55	1
Nickel	0.0042		0.0030	0.00040	mg/L		01/18/16 09:32	01/20/16 09:55	1
Lead	0.032		0.00040	0.000034	mg/L		01/18/16 09:32	01/20/16 09:55	1
Zinc	0.13		0.0070	0.0019	mg/L		01/18/16 09:32	01/20/16 09:55	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	2.5	J	5.0	0.49	mg/L		01/21/16 18:39	01/21/16 20:06	1
HEM	2.5	JB	5.0	0.54	mg/L		01/21/16 18:39	01/21/16 20:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.76	H	0.100	0.100	SU			01/14/16 22:19	1
Total Suspended Solids	140		5.0	5.0	mg/L			01/19/16 15:23	1

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69743-2

TestAmerica Job ID: 720-69743-1

Matrix: Water

Client Sample ID: TS2-I-2016-1

Date Collected: 01/13/16 09:15 Date Received: 01/14/16 15:20

Method: 200.8 - Metals (ICP) Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.37		0.10	0.10	mg/L		01/18/16 09:32	01/20/16 10:00	1
Copper	0.011		0.0020	0.00060	mg/L		01/18/16 09:32	01/20/16 10:00	1
Iron	1.3		0.040	0.0058	mg/L		01/18/16 09:32	01/20/16 10:00	1
Nickel	0.0032		0.0030	0.00040	mg/L		01/18/16 09:32	01/20/16 10:00	1
Lead	0.022		0.00040	0.000034	mg/L		01/18/16 09:32	01/20/16 10:00	1
Zinc	0.12		0.0070	0.0019	mg/L		01/18/16 09:32	01/20/16 10:00	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	3.3	J	5.0	0.49	mg/L		01/21/16 21:57	01/21/16 23:16	1
HEM	3.3	J F1 B	5.0	0.54	mg/L		01/21/16 21:57	01/21/16 23:16	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.82	Н	0.100	0.100	SU			01/14/16 22:25	1
Total Suspended Solids	98		4.0	4.0	mg/L			01/19/16 15:23	1

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Client: Weiss Associates

Client Sample ID: TS3-I-2016-1

Analyte

Total Suspended Solids

рН

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: 720-69743-3

TestAmerica Job ID: 720-69743-1

Matrix: Water

Date Collected: 01/13/16 08:15
Date Received: 01/14/16 15:20

Result Qualifier

6.61 H

49 *

Method: 200.8 - Metals (ICI Analyte	P/MS) Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.24	0.10	0.10	mg/L		01/18/16 09:32	01/20/16 10:04	1
Copper	0.011	0.0020	0.00060	mg/L		01/18/16 09:32	01/20/16 10:04	1
Iron	0.62	0.040	0.0058	mg/L		01/18/16 09:32	01/20/16 10:04	1
Nickel	0.0049	0.0030	0.00040	mg/L		01/18/16 09:32	01/20/16 10:04	1
Lead	0.019	0.00040	0.000034	mg/L		01/18/16 09:32	01/20/16 10:04	1
Zinc	0.080	0.0070	0.0019	mg/L		01/18/16 09:32	01/20/16 10:04	1
General Chemistry								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	3.5 JB	5.2	0.51	mg/L		01/25/16 15:22	01/26/16 20:43	1

RL

4.3

0.100

RL Unit

4.3 mg/L

0.100 SU

D

 Prepared
 Analyzed
 Bil Fac

 01/25/16 15:22
 01/26/16 20:43
 1

 Prepared
 Analyzed
 Dil Fac

 01/14/16 22:28
 1

 01/18/16 17:49
 1

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TestAmerica Job ID: 720-69743-1

Client: Weiss Associates Project/Site: LRT 2015-2016 Annual StormWater Sampling

MR MR

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-209714/14-A

Matrix: Water

Analysis Batch: 209879

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 209714

	1410	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/18/16 09:32	01/20/16 08:51	1
Copper	<0.00060		0.0020	0.00060	mg/L		01/18/16 09:32	01/20/16 08:51	1
Iron	<0.0058		0.040	0.0058	mg/L		01/18/16 09:32	01/20/16 08:51	1
Nickel	<0.00040		0.0030	0.00040	mg/L		01/18/16 09:32	01/20/16 08:51	1
Lead	<0.000034		0.00040	0.000034	mg/L		01/18/16 09:32	01/20/16 08:51	1
Zinc	<0.0019		0.0070	0.0019	mg/L		01/18/16 09:32	01/20/16 08:51	1

Spike

Added

1.00

0.100

0.100

0.100

0.100

10.0

LCS LCS

0.895

0.0946

0.0964

0.0977

0.0948

9.99

Result Qualifier

Unit

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

Lab Sample ID: LCS 580-209714/15-A

Matrix: Water

Analyte

Copper

Iron Nickel

Lead

Zinc

Aluminum

Analysis Batch: 209879

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

Prep Batch: 209714

%Rec. D %Rec Limits 89 85 - 115 95 85 - 115 100 85 - 115 96 85 - 115

85 - 115

85 - 115

Lab Sample ID: LCSD 580-209714/16-A

Matrix: Water

Analysis Batch: 209879

Client Sample ID: Lab	Control Sample Dup
	Prep Type: Total/NA

98

95

Pren Batch: 209714

						Prep Da	ilch: 20	<i>J91</i> 14
Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1.00	0.890		mg/L		89	85 - 115	0	20
0.100	0.0936		mg/L		94	85 - 115	1	20
10.0	9.84		mg/L		98	85 - 115	2	20
0.100	0.0956		mg/L		96	85 - 115	1	20
0.100	0.0968		mg/L		97	85 - 115	1	20
0.100	0.0942		mg/L		94	85 - 115	1	20
	Added 1.00 0.100 10.0 0.100 0.100 0.100	Added Result 1.00 0.890 0.100 0.0936 10.0 9.84 0.100 0.0956 0.100 0.0968	Added Result Qualifier 1.00 0.890 0.100 0.0936 10.0 9.84 0.100 0.0956 0.100 0.0968	Added Result Qualifier Unit 1.00 0.890 mg/L 0.100 0.0936 mg/L 10.0 9.84 mg/L 0.100 0.0956 mg/L 0.100 0.0968 mg/L	Added Result 1.00 Qualifier 0.890 Unit mg/L mg/L mg/L D 0.100 0.0936 mg/L mg/L mg/L 10.0 9.84 mg/L 0.100 0.0956 mg/L 0.100 0.0968 mg/L	Added Result Qualifier Unit D %Rec 1.00 0.890 mg/L 89 0.100 0.0936 mg/L 94 10.0 9.84 mg/L 98 0.100 0.0956 mg/L 96 0.100 0.0968 mg/L 97	Spike LCSD LCSD %Rec. Added Result Qualifier Unit D %Rec Limits 1.00 0.890 mg/L 89 85 - 115 0.100 0.0936 mg/L 94 85 - 115 10.0 9.84 mg/L 98 85 - 115 0.100 0.0956 mg/L 96 85 - 115 0.100 0.0968 mg/L 97 85 - 115	Added Result Qualifier Unit D %Rec Limits RPD 1.00 0.890 mg/L 89 85 - 115 0 0.100 0.0936 mg/L 94 85 - 115 1 10.0 9.84 mg/L 98 85 - 115 2 0.100 0.0956 mg/L 96 85 - 115 1 0.100 0.0968 mg/L 97 85 - 115 1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-320408/1-A

Matrix: Water

Analysis Batch: 320412

Client Sample I	D: Method Blank
------------------------	-----------------

Prep Type: Total/NA Prep Batch: 320408

Analyzed Dil Fac

Analyte Result Qualifier RL **MDL** Unit **Prepared** 5.0 01/21/16 15:50 01/21/16 19:10 HEM 1.20 J 0.54 mg/L

Lab Sample ID: LCS 500-320408/2-A

Matrix: Water

Analysis Batch: 320412

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 320408 LCS LCS Spike %Rec.

Added Analyte Result Qualifier Unit D %Rec Limits HEM 40.0 78 78 - 114 31.4 mg/L

MB MB

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: MB 500-320432/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Prep Batch: 320432

Analysis Batch: 320434 MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac **Prepared** HEM 5.0 0.54 mg/L 01/21/16 19:55 01/21/16 22:20 1.80 J

Lab Sample ID: LCS 500-320432/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 320434** Prep Batch: 320432

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit D %Rec HEM 78 - 114 40.0 33.5 mg/L 84

Lab Sample ID: 720-69743-2 MS Client Sample ID: TS2-I-2016-1 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 320434 Sample Sample Spike MS MS

%Rec. Added Result Qualifier Result Qualifier Limits Analyte Unit D %Rec HEM 3.3 JF1B 40.6 26.0 F1 mg/L 56 78₋114

Client Sample ID: Method Blank Lab Sample ID: MB 500-320710/1-A Prep Type: Total/NA

Matrix: Water Analysis Batch: 320711

MR MR

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac HEM 1.60 J 5.0 0.54 mg/L 01/25/16 13:50 01/25/16 16:00

Lab Sample ID: MB 500-320710/1-A **Client Sample ID: Method Blank** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 320882

MB MB

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac SGT-HEM 5.0 0.49 mg/L 01/25/16 13:50 01/26/16 20:20 1.00 J

Lab Sample ID: LCS 500-320710/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 320711

SGT-HEM

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits

HEM 40 0 38.5 96 78 - 114 mg/L

Lab Sample ID: LCS 500-320710/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 320882 Prep Batch: 320710 Spike LCS LCS %Rec. Added Result Qualifier Analyte Unit %Rec Limits

SGT-HEM 20.0 14.4 mg/L 72 64 - 132

Lab Sample ID: MB 500-320745/1-A **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 320882

0.900 J

Prep Batch: 320745 MB MB Result Qualifier RL Analyte MDL Unit D Prepared Analyzed Dil Fac

5.0

0.49 mg/L

TestAmerica Pleasanton

01/25/16 17:10 01/26/16 20:55

Prep Batch: 320432

Prep Batch: 320710

Prep Batch: 320710

Prep Batch: 320710

TestAmerica Job ID: 720-69743-1

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: 720-69743-A-1 DU

Client Sample ID: Method Blank

%Rec

65

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Lab Sample ID: LCS 500-320745/2-A

Matrix: Water

Analyte

SGT-HEM

Analysis Batch: 320882

Client: Weiss Associates

LCS LCS Spike Result Qualifier

13.0

Unit

mg/L

Prep Type: Total/NA Prep Batch: 320745

Prep Type: Total/NA

%Rec.

Limits 64 - 132

Method: 9040B - pH

Lab Sample ID: LCS 720-195606/1

Matrix: Water

Analysis Batch: 195606

Spike LCS LCS %Rec. Added Limits Analyte Result Qualifier Unit %Rec SU pН 7.00 6.950 99 99 - 101

Added

20.0

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 720-195768/3

Matrix: Water

Analysis Batch: 195768

MB MB

Analyte Result Qualifier RL **RL Unit** Prepared Analyzed Dil Fac Total Suspended Solids 1.0 01/18/16 17:49 <1.0 1.0 mg/L

Lab Sample ID: LCS 720-195768/1

Matrix: Water

Analysis Batch: 195768

LCS LCS Spike %Rec. Added Result Qualifier Limits Unit %Rec **Total Suspended Solids** 500 453 91 69 - 117 ma/L

Lab Sample ID: LCSD 720-195768/2

Matrix: Water

Analysis Batch: 195768

Spike LCSD LCSD %Rec. **RPD** Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 500 365 **Total Suspended Solids** mg/L 73 69 - 117 22

Lab Sample ID: 720-69743-A-1 DU

Matrix: Water Analysis Batch: 195768

Sample Sample DU DU **RPD** Result Qualifier Analyte Result Qualifier Unit **RPD** Limit 140 * **Total Suspended Solids** 141 mg/L

Lab Sample ID: MB 720-195829/3

Matrix: Water

Analysis Batch: 195829

MB MB

Analyte Result Qualifier RL **RL Unit** Prepared Analyzed Dil Fac **Total Suspended Solids** <1.0 1.0 1.0 mg/L 01/19/16 15:23

QC Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-69743-1

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 720-195829/1

Matrix: Water

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analysis Batch: 195829

 Spike
 LCS
 LCS
 %Rec.

 Analyte
 Added
 Result Total Suspended Solids
 Qualifier Mg/L
 Unit Mg/L
 D
 %Rec MRec.

 Total Suspended Solids
 500
 449
 mg/L
 90
 69 - 117

Lab Sample ID: LCSD 720-195829/2

Matrix: Water

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 195829

RPD Spike LCSD LCSD %Rec. Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec 500 85 69 - 117 20 **Total Suspended Solids** 423 mg/L 6

TestAmerica Pleasanton

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QC Association Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Metals

Prep Batch: 209714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	200.8	
720-69743-2	TS2-I-2016-1	Total/NA	Water	200.8	
720-69743-3	TS3-I-2016-1	Total/NA	Water	200.8	
LCS 580-209714/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-209714/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-209714/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 209879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	200.8	209714
720-69743-2	TS2-I-2016-1	Total/NA	Water	200.8	209714
720-69743-3	TS3-I-2016-1	Total/NA	Water	200.8	209714
LCS 580-209714/15-A	Lab Control Sample	Total/NA	Water	200.8	209714
LCSD 580-209714/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	209714
MB 580-209714/14-A	Method Blank	Total/NA	Water	200.8	209714

General Chemistry

Analysis Batch: 195606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	9040B	
720-69743-2	TS2-I-2016-1	Total/NA	Water	9040B	
720-69743-3	TS3-I-2016-1	Total/NA	Water	9040B	
LCS 720-195606/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 195768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-3	TS3-I-2016-1	Total/NA	Water	SM 2540D	
720-69743-A-1 DU	720-69743-A-1 DU	Total/NA	Water	SM 2540D	
LCS 720-195768/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-195768/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-195768/3	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 195829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	SM 2540D	
720-69743-2	TS2-I-2016-1	Total/NA	Water	SM 2540D	
LCS 720-195829/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-195829/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-195829/3	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 320408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	1664A	
LCS 500-320408/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-320408/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 320412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-1	TS1-I-2016-1	Total/NA	Water	1664A	320408

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QC Association Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

General Chemistry (Continued)

Analysis Batch: 320412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-320408/2-A	Lab Control Sample	Total/NA	Water	1664A	320408
MB 500-320408/1-A	Method Blank	Total/NA	Water	1664A	320408

Prep Batch: 320432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-2	TS2-I-2016-1	Total/NA	Water	1664A	
720-69743-2 MS	TS2-I-2016-1	Total/NA	Water	1664A	
LCS 500-320432/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-320432/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 320434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-2	TS2-I-2016-1	Total/NA	Water	1664A	320432
720-69743-2 MS	TS2-I-2016-1	Total/NA	Water	1664A	320432
LCS 500-320432/2-A	Lab Control Sample	Total/NA	Water	1664A	320432
MB 500-320432/1-A	Method Blank	Total/NA	Water	1664A	320432

Prep Batch: 320710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-3	TS3-I-2016-1	Total/NA	Water	1664A	_
LCS 500-320710/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-320710/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 320711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-320710/2-A	Lab Control Sample	Total/NA	Water	1664A	320710
MB 500-320710/1-A	Method Blank	Total/NA	Water	1664A	320710

Prep Batch: 320745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-320745/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-320745/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 320882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69743-3	TS3-I-2016-1	Total/NA	Water	1664A	320710
LCS 500-320710/2-A	Lab Control Sample	Total/NA	Water	1664A	320710
LCS 500-320745/2-A	Lab Control Sample	Total/NA	Water	1664A	320745
MB 500-320710/1-A	Method Blank	Total/NA	Water	1664A	320710
MB 500-320745/1-A	Method Blank	Total/NA	Water	1664A	320745

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Lab Chronicle

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Client Sample ID: TS1-I-2016-1

Date Collected: 01/13/16 09:00 Date Received: 01/14/16 15:20 Lab Sample ID: 720-69743-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209714	01/18/16 09:32	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209879	01/20/16 09:55	FCW	TAL SEA
Total/NA	Prep	1664A			320408	01/21/16 18:39	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320412	01/21/16 20:06	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:19	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195829	01/19/16 15:23	EYT	TAL PLS

Client Sample ID: TS2-I-2016-1

Date Collected: 01/13/16 09:15

Date Received: 01/14/16 15:20

Lab Sample ID: 720-69743-2

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209714	01/18/16 09:32	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209879	01/20/16 10:00	FCW	TAL SEA
Total/NA	Prep	1664A			320432	01/21/16 21:57	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320434	01/21/16 23:16	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:25	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195829	01/19/16 15:23	EYT	TAL PLS

Client Sample ID: TS3-I-2016-1

Date Collected: 01/13/16 08:15

Date Received: 01/14/16 15:20

Lab Sample	ID: 720-69743-3
	Matrix: Water

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			209714	01/18/16 09:32	MKN	TAL SEA
Total/NA	Analysis	200.8		1	209879	01/20/16 10:04	FCW	TAL SEA
Total/NA	Prep	1664A			320710	01/25/16 15:22	SSF	TAL CHI
Total/NA	Analysis	1664A		1	320882	01/26/16 20:43	SSF	TAL CHI
Total/NA	Analysis	9040B		1	195606	01/14/16 22:28	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	195768	01/18/16 17:49	EYT	TAL PLS

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

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Certification Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Prog	gram	EPA Region	Certification ID 2496	Expiration Date 01-31-16 *
Analysis Method	Prep Method	Matrix	Analyt	e	

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-16
California	State Program	9	2903	04-30-16
Georgia	State Program	4	N/A	04-30-16
Georgia	State Program	4	939	04-30-16
Hawaii	State Program	9	N/A	04-30-16
Illinois	NELAP	5	100201	04-30-16
Indiana	State Program	5	C-IL-02	04-30-16
lowa	State Program	7	82	05-01-16
Kansas	NELAP	7	E-10161	01-31-16 *
Kentucky (UST)	State Program	4	66	04-30-16
Kentucky (WW)	State Program	4	KY90023	12-31-16
Massachusetts	State Program	1	M-IL035	06-30-16
Mississippi	State Program	4	N/A	04-30-16
New York	NELAP	2	IL00035	04-01-16
North Carolina (WW/SW)	State Program	4	291	12-31-16
North Dakota	State Program	8	R-194	04-30-16
Oklahoma	State Program	6	8908	08-31-16
South Carolina	State Program	4	77001	04-30-16
USDA	Federal		P330-15-00038	02-11-18
Wisconsin	State Program	5	999580010	08-31-16
Wyoming	State Program	8	8TMS-Q	04-30-16

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-16
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

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^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

Method	Method Description	Protocol	Laboratory	
200.8	Metals (ICP/MS)	EPA	TAL SEA	
1664A	HEM and SGT-HEM	1664A	TAL CHI	
9040B	рН	SW846	TAL PLS	
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS	

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Job ID: 720-69743-1

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Sample Summary

Client: Weiss Associates

Project/Site: LRT 2015-2016 Annual StormWater Sampling

TestAmerica Job ID: 720-69743-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
720-69743-1	TS1-I-2016-1	Water	01/13/16 09:00 01/14/16 15:2
720-69743-2	TS2-I-2016-1	Water	01/13/16 09:15 01/14/16 15:2
720-69743-3	TS3-I-2016-1	Water	01/13/16 08:15 01/14/16 15:2

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770-69743

Chain of Custody Record

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inquished by:	(c) mograshed by M	Lex VIMI	Relinquesticator //	7	Special Instructions/OC Requirements & Comments:	Preservation Used: 1= Kee, 2= ECl; 3= E2SO4; 4=HNO3; 5=NaOH; 6= Other.									TS3-I-2016-1	TS2-I-2016-1	TS1-I-20	(36) Sample Identification	Address: Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804	Job Name: LRT 2015-2016 Annual Storm Water Sampling	(510) 547-5043 FAX	(510) 450-6000 Phone	Emeryville, CA 94608	2200 Powell Street, Suite 925	Weiss Associates	- 1	Phone: 925-484-1919 ext.137	1220 Quarry Lane Pleasanton CA 94566	TestAmerica	Chain of Custody Record
Company	Company:	0 weiss	Сопрапу.		e <u>nts:</u> Level II Report. Report with reporting limit and method detection limit. Analyze and	04; 4=HNO3; 5=NaOH; 6= Oth									1/13/2016	1/13/2016	1/13/2016	Sample Date	(Sp			Analysis	Sample date(s):	r.	Project ID:	er:	sab@weiss.com	labresults@weiss.com	Flease send analytic results, electronic detiverables and me original chain-of-custody form to:	
					port with r	er									0815	0915	0900	Sample Time	(Specify Days or Hours)	Standard		s Turnaro	1/13/2016	AJM	426-2026.01 Task 1.1.3	Scott Bourne		_	dy form to:	
Pate/Type 10	1/14/16 1045	יין י	Date/Time		eporting lin			Ž,							W	W	W	Sample Matrix	Hours)	ď		Analysis Turnaround Time:			Task 1.1.3	e			лас оедунаат	الأسمالة متا
<u>Z</u>	1045	ાન્ડજ			iit and met		Field Fatered (X)								51	IJ	IJ	# of Cont		•									CS alle lie	4
*Gecerved by		FRIDGE	Received by		hod dete	ı	*								X	X	X	рН (Е	alyte PA 90			LIP.);;;;	inner.		Protocol ID/path:	Call ir	Specia	Equis	INST
ţ	N	Jai	à	,	ection l	1							,		×	×	×	Total	Suspe	nded	Soli	ds (S	M 2	540T.) .	/path:	Call immediately with any questions or problems	Specify malytic/prep method and detection limit in report. Notify ma of any anomalous peaks in GC or other scans	Equis 4-file EDWEDD required?	INSTRUCTIONS FOR LAB PERSONNEL:
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	$E_{\mathbb{R}}$	meiss	my.		report only the metals listed above (Al, Cu, Fe, Ni, Ph, and Zn).		т -	720-6																						
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725/	2	1430		-							1							Sample Specific Notes:			abert		of 1			nber:				
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M = Samples released to a secured, locked area.

166112

1/28/2016

TestAmerica Pleasanton

1220 Quarry Lane Pleasanton, CA 94566

Chain of Custody Record



<u>TestAmerica</u>

Phone (925) 484-1919 Fax (925) 600-3002																		THE LEADER IN EN	VIRONMENTAL TESTING	
Client Information (Sub Contract Lab)	Sampler:			s		mith, Micah							rier Tra	acking	No(s):			COC No: 720-27357.1		
Client Contact: Shipping/Receiving	Phone:				-Mail:- nìcah.			stamer		com								Page: Page 1 of 1		
Company: TestAmerica Laboratories, Inc.						Analysis Requested								ı				Job #: 720-69743-1		
Address:	Due Date Requested:						88											Preservation Codes:		
2417 Bond Street, , City:	1/21/2016 TAT Requested (days):							1		1					m.c24-			A - HCL	M - Hexane	
University Park	IAI Kequesteu (u	ays <i>j</i> .			×× //												¥;:	B - NaOH C - Zn Acetate	N - None O - AsNaO2	
State, Zip:	PO#:																	D - Nitric Acid E - NaHSO4	P - Na2O4S Q - Na2SO3	
IL, 60484 Phone:							6									İ		F - MeOH G - Amchlor	R - Na2S2SO3 S - H2SO4	
708-534-5200(Tel) 708-534-5211(Fax					_		Ŧ										- 1.7E	H - Ascorbic Acid	T - TSP Dodecahydrate	
Email:	WO#:				2	ō	SGT											I - Ice J - DI Water	U - Acetone V - MCAA	
Project Name:	Project #:				— §	8	трн (ѕст-нем)										ntainer		W - ph 4-5 Z - other (specify)	
LRTC Stormwater 720-69743 COC	72009078						SPET										conta			
Site: 720-69743 COC	SSOW#:		E S	ğ	\$_							li			70	Other:				
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	G=grab) вт		ii, plaid	Perform MS/MSD (Yes or No)	1664A_Calc/1664A_			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							Total Number	Special Ins	structions/Note:	
			Preservation	in Code	* X	$\langle X \rangle$	8	, if	ě.	ij.	300	. 2	3	/ 1		4	X			
TS1-I-2016-1 (720-69743-1)	1/13/16	09:00 Pacific		Water			Х									- [3	1		
TS2-I-2016-1 (720-69743-2)	1/13/16	09:15 Pacific		Water			Х										3			
TS3-I-2016-1 (720-69743-3)	1/13/16	08:15 Pacific		Water			Х							Ш	_	۱.		<u>Ψ</u>		
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									İ							İ				
Possible Hazard Identification	<u> </u>					San	nple	Dispo	sal (A	fee r	nay be	asse	sed	if san	nples	are re	taine	ed longer than 1 n	nonth)	
Unconfirmed						╽└	$\sqcup_{R_{i}}$	eturn T	o Clier	nt		Dispo	sal B	y Lab)		Archi	ive For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)						Spe	cial	Instruct	ions/Q	C Re	quirem	nents:								
Empty Kit Relinquished by:		Date:			Ti	me:		10			Δ		Meth	od of S	hipmen					
Relinquished by:	Date/Tinle:	14	300	mpany	1		Rece	M	IAN.	7	do	extA	_		Date/ ir	8/1	lo	0730	Company POLT	
Relinquished by:	Date/fime:						Received by:							ī	Dat e /Tir		<u>v</u>		Company	
Relinquished by:	Date/Time:		Co	mpany		Received by:								Ī	Date/Tlr	ne:			Company	
Custody Seals Intact: Custody Seal No.:							Coole	r Tempe	rature(s) °C an	d Other	Remark	s:	1	[5	-,			

Client: Weiss Associates Job Number: 720-69743-1

Login Number: 69743 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Creator: Bullock, Tracy		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	False	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-69743-1

List Source: TestAmerica Chicago
List Number: 3
List Creation: 01/18/16 07:50 AM

Creator: Scott, Sherri L

Answer	Comment
/ True	
True	
True	
True	
True	
True	
True	1.5
True	
True	
True	
N/A	
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	True True True True True True True True

Client: Weiss Associates Job Number: 720-69743-1

List Source: TestAmerica Seattle
List Number: 2
List Creation: 01/16/16 01:00 PM

Creator: Luna, Francisco J

Creator. Luria, Francisco J		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR2 9.2c/9.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Calscience



WORK ORDER NUMBER: 16-01-1628

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

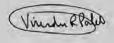
Client Project Name: LRT 2015-2016 Annual Storm Water

Sampling / 426-2026.01 Task 1.1.3

Attention: Greg Hulburd 2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 02/02/2016 by:

Virendra Patel **Project Manager**



Email your PM >

ResultLink >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3
Work Order Number:	16-01-1628

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3	QC Association Summary	5
4	Client Sample Data	6 6 7
5	Quality Control Sample Data. 5.1 LCS/LCSD.	9
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7	Glossary of Terms and Qualifiers	12
8	Chain-of-Custody/Sample Receipt Form	13



Work Order Narrative

Work Order: 16-01-1628 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/26/16. They were assigned to Work Order 16-01-1628.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order:

16-01-1628

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time

01/26/16 09:55

Received:

Number of Containers: 3

Attn: Greg Hulburd

Number of Containers Sample Identification Lab Number **Collection Date and Time** Matrix TS2-I-2016-2 16-01-1628-1 01/22/16 08:54 3 Aqueous



QC Association Summary

Work Order: 16-0	1-1628				Pag	je 1 of 1
Client Sample ID	Method Name	<u>Type</u>	Ext Name	<u>Instrument</u>	MS/MSD/SDP	LCS/LCSD
TS2-I-2016-2	EPA 8081A Organochlorine Pesticides		EPA 3510C	GC 44	*2	160127L02A
TS2-I-2016-2	EPA 8081A Organochlorine Pesticides		EPA 3510C	GC 44	*2	160127L08



01/26/16 Weiss Associates Date Received: 2200 Powell Street, Suite 925 Work Order: 16-01-1628 Emeryville, CA 94608-1879 Preparation: **EPA 3510C**

> Method: **EPA 8081A** Units: ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2016-2	16-01-1628-1-A	01/22/16 08:54	Aqueous	GC 44	01/27/16	01/29/16 13:47	160127L02A
Comment(s): - Results were evalua-	ated to the MDL (DL), cond	centrations >=	to the MDL (DL	but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.097	0.027	1.00		
Beta-BHC	ND		0.097	0.029	1.00		
Delta-BHC	ND		0.097	0.028	1.00		
Endosulfan I	ND		0.097	0.027	1.00		
Endrin Aldehyde	ND		0.097	0.026	1.00		
Endosulfan II	ND		0.097	0.026	1.00		
Endosulfan Sulfate	ND		0.097	0.028	1.00		
Methoxychlor	ND		0.097	0.024	1.00		
Chlordane	ND		0.97	0.32	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	93		50-135				
2,4,5,6-Tetrachloro-m-Xylene	86		50-135				

Method Blank	099-12-529-868	B N/A	Aqueous G	C 44 01/	27/16	01/29/16 13:19	160127L02A
Comment(s): - Res	sults were evaluated to the MDL (DL), c	oncentrations >= to	the MDL (DL) b	ut < RL (LOQ), if	found, are c	qualified with a	"J" flag.
<u>Parameter</u>	<u>Re</u>	esult R	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>ualifiers</u>
Alpha-BHC	NI	0 0	.10	0.028	1.00		
Beta-BHC	NI	0	.10	0.030	1.00		
Delta-BHC	NI	0	.10	0.029	1.00		
Endosulfan I	NI	0	.10	0.028	1.00		
Endrin Aldehyde	NI	0	.10	0.026	1.00		
Endosulfan II	NI	0	.10	0.027	1.00		
Endosulfan Sulfate	NI	0	.10	0.029	1.00		
Methoxychlor	NI	0	.10	0.025	1.00		
Chlordane	NI) 1	.0	0.33	1.00		
Surrogate	<u>Re</u>	ec. (%)	Control Limits	Qualifiers			
Decachlorobiphenyl	99	5	0-135				
2,4,5,6-Tetrachloro-m-	Xylene 81	5	0-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

16-01-1628 EPA 3510C **EPA 8081A** ng/L

01/26/16

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TS2-I-2016-2	16-01-1628-1-BC	01/22/16 08:54	Aqueous	GC 44	01/27/16	01/29/16 12:07	160127L08
Comment(s): - Results were evaluated t	to the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>tualifiers</u>
Aldrin	ND		1.3	0.50	1.00		
2,4'-DDD	ND		1.3	0.50	1.00		
2,4'-DDE	ND		1.3	0.50	1.00		
2,4'-DDT	ND		2.0	0.99	1.00		
4,4'-DDD	ND		1.3	0.50	1.00		
4,4'-DDE	ND		1.3	0.50	1.00		
4,4'-DDT	ND		1.3	0.50	1.00		
Alpha Chlordane	ND		3.3	1.7	1.00		
Dieldrin	ND		1.3	0.50	1.00		
Gamma Chlordane	ND		3.3	1.7	1.00		
Toxaphene	ND		50	25	1.00		
Endrin	ND		1.3	0.50	1.00		
Gamma-BHC	ND		1.3	0.50	1.00		
Heptachlor	ND		1.3	0.50	1.00		
Heptachlor Epoxide	ND		1.3	0.50	1.00		
<u>Surrogate</u>	Rec.	<u>(%)</u>	Control Limits	<u>Qualifiers</u>			
Decachlorobiphenyl	105		50-150				
2,4,5,6-Tetrachloro-m-Xylene	107		50-150				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Gamma-BHC

Heptachlor Epoxide

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

Heptachlor

Surrogate

Date Received: Work Order: Preparation: Method:

0.50

0.50

0.50

Qualifiers

1.00

1.00

1.00

Units:

01/26/16 16-01-1628 **EPA 3510C** EPA 8081A ng/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank		099-16-704-7	N/A	Aqueous	GC 44	01/27/16	01/29/16 11:53	160127L08
Comment(s): - R	esults were evaluated to	the MDL (DL), cond	centrations >=	to the MDL (DI	L) but < RL (LC	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>		<u>Resu</u>	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>C</u>	<u>Qualifiers</u>
Aldrin		ND		1.3	0.50	1.00		
2,4'-DDD		ND		1.3	0.50	1.00		
2,4'-DDE		ND		1.3	0.50	1.00		
2,4'-DDT		ND		2.0	1.0	1.00		
4,4'-DDD		ND		1.3	0.50	1.00		
4,4'-DDE		ND		1.3	0.50	1.00		
4,4'-DDT		ND		1.3	0.50	1.00		
Alpha Chlordane		ND		3.3	1.7	1.00		
Dieldrin		ND		1.3	0.50	1.00		
Gamma Chlordane		ND		3.3	1.7	1.00		
Toxaphene		ND		50	25	1.00		
Endrin		ND		1.3	0.50	1.00		

1.3

1.3

1.3

50-150

50-150

Control Limits

ND

ND

ND

69

74

Rec. (%)





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/26/16 16-01-1628 **EPA 3510C EPA 8081A**

Page 1 of 2

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36-149

36-149

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Project: LRT 2015-2016 Annual Storm Water Sampling / 426-

0.5000

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0.4271

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0.4756

0.4802

0.5233

0.5208

0.4753

0.5801

0.4851

0.4578

0.4891

85

93

95

96

105

104

95

116

97

92

98

2026.01 Task 1.1.3

Heptachlor Epoxide

Endosulfan I

Endrin Aldehyde

Endosulfan Sulfate

Dieldrin

4,4'-DDE

4.4'-DDD

4,4'-DDT

Endosulfan II

Methoxychlor

Endrin

Quality Control Sample ID Matrix Instrument **Date Prepared** Date Analyzed LCS/LCSD Batch Number Type 099-12-529-868 LCS GC 44 01/27/16 01/29/16 12:50 160127L02A Aqueous 01/27/16 099-12-529-868 **LCSD** Aqueous GC 44 01/29/16 13:05 160127L02A LCSD %Rec. LCS %Rec. LCSD Conc. <u>Spike</u> Added Parameter LCS Conc. %Rec. CL ME CL **RPD** RPD CL Qualifiers Alpha-BHC 0.5000 0.4660 93 0.4657 93 50-135 36-149 0 0-25 Gamma-BHC 0.5000 0.4757 95 0.4732 95 50-135 36-149 0-25 1 Beta-BHC 0.5000 0.4869 97 0.4688 94 50-135 36-149 4 0-25 Heptachlor 0.5000 0.4178 84 0.4297 86 50-135 36-149 3 0-25 Delta-BHC 0.5000 0.4996 100 0.4706 94 50-135 36-149 6 0-25 Aldrin 0.5000 0.3733 75 0.3953 79 50-135 36-149 6 0-25

0.4271

0.4775

0.4794

0.4669

0.5158

0.4543

0.4657

0.5898

0.4719

0.4583

0.4734

85

96

96

93

103

91

93

118

94

92

95

50-135

50-135

50-135

50-135

50-135

50-135

50-135

50-135

50-135

50-135

50-135

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass







Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/26/16 16-01-1628 **EPA 3510C EPA 8081A**

Page 2 of 2

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Quality Control Sample ID	Type		Matrix	Ir	nstrument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-16-704-7	LCS		Aqueous	G	C 44	01/27/16	01/29/	16 11:25	160127L08	
099-16-704-7	LCSD		Aqueous	G	GC 44	01/27/16	01/29/	16 11:39	160127L08	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	33.35	24.52	74	22.62	68	50-150	33-167	8	0-25	
4,4'-DDD	33.35	24.73	74	23.97	72	50-150	33-167	3	0-25	
4,4'-DDE	33.35	27.21	82	26.35	79	50-150	33-167	3	0-25	
4,4'-DDT	33.35	26.18	78	25.07	75	50-150	33-167	4	0-25	
Alpha Chlordane	33.35	24.21	73	22.79	68	50-150	33-167	6	0-25	
Dieldrin	33.35	26.15	78	23.42	70	50-150	33-167	11	0-25	
Gamma Chlordane	33.35	23.80	71	22.66	68	50-150	33-167	5	0-25	
Endrin	33.35	27.44	82	26.49	79	50-150	33-167	4	0-25	
Gamma-BHC	33.35	25.03	75	22.89	69	50-150	33-167	9	0-25	
Heptachlor	33.35	25.93	78	23.67	71	50-150	33-167	9	0-25	
Heptachlor Epoxide	33.35	22.35	67	21.33	64	50-150	33-167	5	0-25	

Total number of LCS compounds: 11 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 16-01-1628				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1



Glossary of Terms and Qualifiers

Work Order: 16-01-1628 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
Е	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.

- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.
 - Solid Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Project Manager, Score Burners	Cold Cold	Chain of Custody Record CalSciene Environmental Lab	Please send analytic results, electronic original chain-of-custody form to:	tronic deliverables and the 5:		INSTRUCTIONS FOR LAB PERSONNEL: Geofracker EDF required?	5	
Project Manager: State Bannes	Sumpled Days		labresuits@weiss.com ajm@weiss.com sab@weiss.com		Notify us of any a Call immediately v	nomalous peaks in GC or other scans. with any questions or problems.		-1028
Sumplet One 10 10 10 10 10 10 10 1	Project DR: 42-2006.01 Tank 11.33 Simple State of Front Sample State of			ne	Protocol ID/path:	J:\Levin Richmond\03b_Sampling		COC Number:
Sample by: All	Sample to 1972 March 14 Mar			11 Task 1.1.3				
Simple date(p) N.C.A. Use Sinder	Sample date(s) NYAL Us. State Arabysis Turnaround Time: Bit State							
Sample Date Sampl	Analysis Turnaround Time: Sample		Sample date(s): \\22\	91				Page 1 of 1
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	11222 11222 14 2854 20 3 K			Sample Matrix	my			Sample Specific Notes:
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1	Second Service 1 1 1 1 1 1 1 1 1			Field Filtered	;(X):			
HC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor. B. 2,4"-DDT, 4,4"-DDD	HC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor. E, 2,4"-DDT, 4,4"-DDD, 4,4"-DDE, 4,4"-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene Company: C	; 4=H	NO3; 5=NaOH; 6= Other		1			
BHC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan II, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor. E, 2,4-DDT, 4,4-DDD, 4,4-DDT, Aldrin, Alpha Chlordane, Diedrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor Epoxide and Toxaphene Company: C	BHC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan Bulfate, Endrin Aldehyde and Methoxychlor. E. 2,4-DDT, 4,4-DDD, 4,4-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene Company: Com	ents:	Level II Report. Report wit	th reporting limit and	method detection li	imit. Please use agreed upon analytical m	ethods for lowest detection limi	ts (standard 8081A and low-
		BHC,	Chlordane, Delta-BHC, Endi '-DDT, 4,4'-DDD, 4,4'-DDE, 4	osulfan I, Endosulfan 4,4'-DDT, Aldrin, Alp	II, Endosulfan Sulf ha Chlordane, Diel	ate, Endrin Aldehyde and Methoxychlor. drin, Endrin, Gamma Chlordane, Gamm	1a-BHC, Heptachlor, Heptachlo	r Epoxide and Toxaphene
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urn to Contents





800-322-5555 www.gso.com

Ship From

CAL SCIENCE- CONCORD ALAN KEMP 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520

Ship To CEL SAMPLE RECEIVING 7440 LINCOLN WAY GARDEN GROVE, CA 92841

COD: \$0.00 Weight: 0 lb(s) Reference:

HALEY & ALDRICH, WEISS **Delivery Instructions:**

Signature Type: REQUIRED

Tracking #: 530690290



ORC GARDEN GROVE A

D92845A



47463570

Print Date: 1/25/2016 3:56 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.



Calscience

WORK ORDER NUMBER: 16-01- 1628

SAMPLE RECEIPT CHECKLIST

COOLER ____/ OF __/

CLIENT: Weiss Assoc	OATE: 01	1 <u>26</u>	/ 2016
TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF):			ample B36
CUSTODY SEAL: Cooler	Checke Checke		1058 836
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete □ Sampling date □ Sampling time □ Matrix □ Number of containers	🗷	No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished ti Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested			
Samples received within holding time Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses	p		
□ Volatile Organics □ Total Metals □ Dissolved Metals Container(s) for certain analysis free of headspace □ Volatile Organics □ Dissolved Gases (RSK-175) □ Dissolved Oxygen (SM 4500) □ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)		_	∠
Tedlar™ bag(s) free of condensation CONTAINER TYPE: (Trip Blank Lot Nur	nber:		
Aqueous: VOA VOAh VOAna2 100PJ 100PJna2 125AGB 125AGBh 125AG	AGJ □ 500. es® ()): □ Resealable E	AGJs	1058



Calscience



WORK ORDER NUMBER: 16-01-1629

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Weiss Associates

Client Project Name: LRT 2015-2016 Annual Storm Water

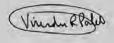
Sampling / 426-2026.01 Task 1.1.3

Attention: Scott Bourne

2200 Powell Street

Suite 925

Emeryville, CA 94608-1879



Approved for release on 02/02/2016 by:

Virendra Patel Project Manager



ResultLink >

Email your PM >

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



Contents

Client Project Name:	LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3
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Work Order Number: 16-01-1629

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2	Sample Summary	4
3	QC Association Summary	5
4	Client Sample Data	6
5	Quality Control Sample Data. 5.1 LCS/LCSD.	11 11
6	Sample Analysis Summary	13
7	Glossary of Terms and Qualifiers	14
8	Chain-of-Custody/Sample Receipt Form	15



Work Order Narrative

Work Order: 16-01-1629 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/26/16. They were assigned to Work Order 16-01-1629.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Sample Summary

Client: Weiss Associates

2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Work Order:

16-01-1629

LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3 Project Name:

PO Number:

Date/Time

01/26/16 09:55

Received:

5 Number of

Containers:

Attn: Scott Bourne

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TS2-E-2016-2	16-01-1629-1	01/22/16 09:10	2	Aqueous
FD-2016-2	16-01-1629-2	01/22/16 09:15	3	Aqueous





QC Association Summary

Work Order: 16-0	1-1629			Page 1 of 1		
Client Sample ID	Method Name	Type Ext Na	me Instrument	MS/MSD/SDP	LCS/LCSD	
TS2-E-2016-2	EPA 8081A Organochlorine Pesticides	EPA 35	510C GC 44	*4	160127L02A	
TS2-E-2016-2	EPA 8081A Organochlorine Pesticides	EPA 35	510C GC 44	*4	160127L08	
FD-2016-2	EPA 8081A Organochlorine Pesticides	EPA 35	510C GC 44	*4	160127L02A	
FD-2016-2	EPA 8081A Organochlorine Pesticides	EPA 35	510C GC 44	*4	160127L08	



01/26/16 Weiss Associates Date Received: 2200 Powell Street, Suite 925 Work Order: 16-01-1629 Emeryville, CA 94608-1879 Preparation: **EPA 3510C** Method: **EPA 8081A**

Units: ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
TS2-E-2016-2	16-01-1629-1-A	01/22/16 09:10	Aqueous	GC 44	01/27/16	01/29/16 14:02	160127L02A	
Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.								
<u>Parameter</u>	Resu	<u>lt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	2	<u>Qualifiers</u>	
Alpha-BHC	ND		0.10	0.028	1.00			
Beta-BHC	ND		0.10	0.030	1.00			
Delta-BHC	ND		0.10	0.029	1.00			
Endosulfan I	ND		0.10	0.028	1.00			
Endrin Aldehyde	ND		0.10	0.026	1.00			
Endosulfan II	ND		0.10	0.027	1.00			
Endosulfan Sulfate	ND		0.10	0.029	1.00			
Methoxychlor	ND		0.10	0.025	1.00			
Chlordane	ND		1.0	0.33	1.00			
Surrogate	Rec.	(%)	Control Limits	Qualifiers				
Decachlorobiphenyl	99		50-135					
2,4,5,6-Tetrachloro-m-Xylene	89		50-135					

FD-2016-2	16-01-162	29-2-A	01/22/16 09:15	Aqueous	GC 44	01/27/16	01/29/16 14:16	160127L02A
Comment(s): -	Results were evaluated to the MDL (DL), conc	entrations >= 1	to the MDL (DL) but < RL (LOC	Q), if found, are	qualified with	a "J" flag.
<u>Parameter</u>		Resul	<u> t</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>		<u>Qualifiers</u>
Alpha-BHC		ND		0.10	0.029	1.00		
Beta-BHC		ND		0.10	0.031	1.00		
Delta-BHC		ND		0.10	0.030	1.00		
Endosulfan I		ND		0.10	0.029	1.00		
Endrin Aldehyde		ND		0.10	0.028	1.00		
Endosulfan II		ND		0.10	0.028	1.00		
Endosulfan Sulfate		ND		0.10	0.030	1.00		
Methoxychlor		ND		0.10	0.026	1.00		
Chlordane		ND		1.0	0.34	1.00		
Surrogate		Rec.	(%)	Control Limits	Qualifiers			
Decachlorobipheny	И	87		50-135				
2,4,5,6-Tetrachloro	o-m-Xylene	80		50-135				

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Units:

16-01-1629 EPA 3510C **EPA 8081A**

01/26/16

ug/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-529-868	N/A	Aqueous	GC 44	01/27/16	01/29/16 13:19	160127L02A
Comment(s): - Results were evaluated	to the MDL (DL), cond	centrations >=	to the MDL (DI	_) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>ılt</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>(</u>	<u>Qualifiers</u>
Alpha-BHC	ND		0.10	0.028	1.00		
Beta-BHC	ND		0.10	0.030	1.00		
Delta-BHC	ND		0.10	0.029	1.00		
Endosulfan I	ND		0.10	0.028	1.00		
Endrin Aldehyde	ND		0.10	0.026	1.00		
Endosulfan II	ND		0.10	0.027	1.00		
Endosulfan Sulfate	ND		0.10	0.029	1.00		
Methoxychlor	ND		0.10	0.025	1.00		
Chlordane	ND		1.0	0.33	1.00		
Surrogate	Rec.	<u>(%)</u>	Control Limits	Qualifiers			
Decachlorobiphenyl	99		50-135				
2,4,5,6-Tetrachloro-m-Xylene	81		50-135				





Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Decachlorobiphenyl

2,4,5,6-Tetrachloro-m-Xylene

Date Received: Work Order: Preparation: Method:

EPA 3510C EPA 8081A

Page 1 of 3

01/26/16

16-01-1629

Units: ng/L

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Lab Sample Number Client Sample Number Date/Time Matrix Date Prepared Date/Time QC Batch ID Instrument Collected Analyzed 01/22/16 TS2-E-2016-2 16-01-1629-1-AB GC 44 01/27/16 01/29/16 160127L08 Aqueous 09:10 12:22 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): **Parameter** Result <u>RL</u> **MDL** <u>DF</u> Qualifiers ND 0.50 1.3 1.00 Aldrin 2,4'-DDD ND 1.3 0.50 1.00 2,4'-DDE ND 1.3 0.50 1.00 2,4'-DDT ND 2.0 1.0 1.00 4,4'-DDD ND 0.50 1.3 1.00 4,4'-DDE ND 1.3 0.50 1.00 4,4'-DDT ND 1.3 0.50 1.00 Alpha Chlordane ND 3.3 1.7 1.00 Dieldrin ND 1.3 0.50 1.00 ND Gamma Chlordane 3.3 1.7 1.00 ND Toxaphene 50 25 1.00 Endrin ND 0.50 1.3 1.00 Gamma-BHC ND 0.50 1.3 1.00 Heptachlor ND 1.3 0.50 1.00 Heptachlor Epoxide ND 1.3 0.50 1.00 Rec. (%) **Control Limits** Qualifiers <u>Surrogate</u>

50-150

50-150

115

100

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Heptachlor Epoxide

Date Received: Work Order: Preparation: Method:

0.50

Qualifiers

1.00

16-01-1629 **EPA 3510C** EPA 8081A ng/L

01/26/16

Units:

Page 2 of 3

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FD-2016-2	16-01-1629-2-AB	01/22/16 09:15	Aqueous	GC 44	01/27/16	01/29/16 12:36	160127L08
Comment(s): - Results were evaluated to	o the MDL (DL), cond	centrations >= to	the MDL (DI	L) but < RL (LO	Q), if found, are	qualified with a	"J" flag.
<u>Parameter</u>	<u>Resu</u>	<u>lt R</u>	<u> </u>	<u>MDL</u>	<u>DF</u>	<u>Q</u>	<u>ualifiers</u>
Aldrin	ND	1	.3	0.50	1.00		
2,4'-DDD	ND	1	.3	0.49	0.993		
2,4'-DDE	ND	1	.3	0.49	0.993		
2,4'-DDT	ND	2	.0	0.99	0.993		
4,4'-DDD	ND	1	.3	0.50	1.00		
4,4'-DDE	ND	1	.3	0.50	1.00		
4,4'-DDT	ND	1	.3	0.50	1.00		
Alpha Chlordane	ND	3	.3	1.7	1.00		
Dieldrin	ND	1	.3	0.50	1.00		
Gamma Chlordane	ND	3	.3	1.7	1.00		
Toxaphene	ND	5	0	25	1.00		
Endrin	ND	1	.3	0.50	1.00		
Gamma-BHC	ND	1	.3	0.50	1.00		
Heptachlor	ND	1	.3	0.50	1.00		

1.3



ND





Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Heptachlor

Heptachlor Epoxide

Date Received: Work Order: Preparation: Method:

16-01-1629 EPA 3510C EPA 8081A

Page 3 of 3

01/26/16

Units: ng/L

1.00

1.00

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Lab Sample Number Client Sample Number Date/Time Matrix Date Prepared Date/Time QC Batch ID Instrument Collected Analyzed 01/29/16 11:53 **Method Blank** 099-16-704-7 N/A GC 44 01/27/16 160127L08 Aqueous - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag. Comment(s): **Parameter** Result <u>RL</u> **MDL** <u>DF</u> Qualifiers ND 0.50 1.00 Aldrin 1.3 2,4'-DDD ND 1.3 0.50 1.00 2,4'-DDE ND 1.3 0.50 1.00 2,4'-DDT ND 2.0 1.0 1.00 4,4'-DDD ND 0.50 1.3 1.00 4,4'-DDE ND 1.3 0.50 1.00 4,4'-DDT ND 1.3 0.50 1.00 Alpha Chlordane ND 3.3 1.7 1.00 Dieldrin ND 1.3 0.50 1.00 ND Gamma Chlordane 3.3 1.7 1.00 ND Toxaphene 50 25 1.00 Endrin ND 0.50 1.3 1.00 Gamma-BHC ND 0.50 1.3 1.00

1.3

1.3

 Surrogate
 Rec. (%)
 Control Limits

 Decachlorobiphenyl
 69
 50-150

 2,4,5,6-Tetrachloro-m-Xylene
 74
 50-150

ND

ND

Qualifiers

0.50

0.50

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

01/26/16 16-01-1629 **EPA 3510C EPA 8081A**

Page 1 of 2

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

0.5000

0.5000

0.5000

0.5000

0.5801

0.4851

0.4578

0.4891

116

97

92

98

Quality Control Sample ID	Type		Matrix	Instr	ument	Date Prepare	ed Date A	nalyzed	LCS/LCSD Ba	tch Number
099-12-529-868	LCS		Aqueous	GC 4	14	01/27/16	01/29/	6 12:50	160127L02A	
099-12-529-868	LCSD		Aqueous	GC 4	14	01/27/16	01/29/	6 13:05	160127L02A	
Parameter	<u>Spike</u> Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.4660	93	0.4657	93	50-135	36-149	0	0-25	
Gamma-BHC	0.5000	0.4757	95	0.4732	95	50-135	36-149	1	0-25	
Beta-BHC	0.5000	0.4869	97	0.4688	94	50-135	36-149	4	0-25	
Heptachlor	0.5000	0.4178	84	0.4297	86	50-135	36-149	3	0-25	
Delta-BHC	0.5000	0.4996	100	0.4706	94	50-135	36-149	6	0-25	
Aldrin	0.5000	0.3733	75	0.3953	79	50-135	36-149	6	0-25	
Heptachlor Epoxide	0.5000	0.4271	85	0.4271	85	50-135	36-149	0	0-25	
Endosulfan I	0.5000	0.4671	93	0.4775	96	50-135	36-149	2	0-25	
Dieldrin	0.5000	0.4756	95	0.4794	96	50-135	36-149	1	0-25	
4,4'-DDE	0.5000	0.4802	96	0.4669	93	50-135	36-149	3	0-25	
Endrin	0.5000	0.5233	105	0.5158	103	50-135	36-149	1	0-25	
Endrin Aldehyde	0.5000	0.5208	104	0.4543	91	50-135	36-149	14	0-25	
4,4'-DDD	0.5000	0.4753	95	0.4657	93	50-135	36-149	2	0-25	

0.5898

0.4719

0.4583

0.4734

118

94

92

95

50-135

50-135

50-135

50-135

36-149

36-149

36-149

36-149

2

3

0

3

0-25

0-25

0-25

0-25

Total number of LCS compounds: 17 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

Endosulfan II

Methoxychlor

Endosulfan Sulfate

4,4'-DDT

CL: Control Limits RPD: Relative Percent Difference.





Quality Control - LCS/LCSD

Weiss Associates 2200 Powell Street, Suite 925 Emeryville, CA 94608-1879

Date Received: Work Order: Preparation: Method:

Instrument

01/26/16 16-01-1629 **EPA 3510C EPA 8081A**

Page 2 of 2

Project: LRT 2015-2016 Annual Storm Water Sampling / 426-2026.01 Task 1.1.3

Type

Quality Control Sample ID

Date Prepared Date Analyzed LCS/LCSD Batch Number

099-16-704-7	LCS		Aqueous	GC 44	ļ	01/27/16	01/29/16	11:25	160127L08	
099-16-704-7	LCSD		Aqueous	GC 44	ı	01/27/16	01/29/16	11:39	160127L08	
Parameter	<u>Spike</u> Added	LCS Conc.	<u>LCS</u> %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	<u>RPD</u>	RPD CL	Qualifiers
Aldrin	33.35	24.52	74	22.62	68	50-150	33-167	8	0-25	
4,4'-DDD	33.35	24.73	74	23.97	72	50-150	33-167	3	0-25	
4,4'-DDE	33.35	27.21	82	26.35	79	50-150	33-167	3	0-25	
4,4'-DDT	33.35	26.18	78	25.07	75	50-150	33-167	4	0-25	
Alpha Chlordane	33.35	24.21	73	22.79	68	50-150	33-167	6	0-25	
Dieldrin	33.35	26.15	78	23.42	70	50-150	33-167	11	0-25	
Gamma Chlordane	33.35	23.80	71	22.66	68	50-150	33-167	5	0-25	
Endrin	33.35	27.44	82	26.49	79	50-150	33-167	4	0-25	
Gamma-BHC	33.35	25.03	75	22.89	69	50-150	33-167	9	0-25	
Heptachlor	33.35	25.93	78	23.67	71	50-150	33-167	9	0-25	
Heptachlor Epoxide	33.35	22.35	67	21.33	64	50-150	33-167	5	0-25	

Matrix

Total number of LCS compounds: 11 Total number of ME compounds: 0 Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits





Sample Analysis Summary Report

Work Order: 16-01-1629				Page 1 of 1
Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3510C	669	GC 44	1



Glossary of Terms and Qualifiers

Work Order: 16-01-1629 Page 1 of 1

Qualifiers	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
Χ	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Revised COC received from Andrew Miller (Weiss) on 01/26/16 at 15:54pm - Virendra (ECI)

Chain of Custody Record	Please send analytic results, electronic deliverables and the	sults, electron	iic deliverabl	es and the	INSTRUC GeoTracke	INSTRUCTIONS FOR LAB PERS GeoTracker EDF required?	INSTRUCTIONS FOR LAB PERSONNEL: Geofracker EDF required: Yes Forms, 4-fit spinUTh) countried? Note:	No No				·
CalSciene Environmenta Lab 5063 Commercial Circle, Suite H Concord, CA 94630 Phone: 075,680-9073	original chain-of-custody form to: labresults@weiss.com ajm@weiss.com sab@welss.com	dy form to:			Equis 4-fil Specify and Notify us of Call immed	e EDWEDD re lytic/prep methor f any anomalous iately with any o	활용 팀	s C No t in report. r scans. s.	•	16-0	16-01-1629	•
Client Contact	١	Scott Bourne		1	Protocol ID/path:		J:\Levin Richmond\03b_Sampling	ling			COC Number:	nber:
	Project ID:	426-2026.01 Task 1.1.3	fask 1.1.3									
	Sampled by:	AJM			2.2						.	
	Sample date(s):	112011			- (Page 1 of 1	Į,
Phone	Analysis	Analysis Turnaround Time:	nd Time:									A STANCE OF THE
FAX				er en en			-				SDG number	ober:
Job Name: LRT 2015-2016 Annual Storm Water Sampling		Standard										
Levin Richmond Temunal, 402 Wright Avenue, Richmond, CA 94804	(Spe	(Specify Days or Hours)	(ours)		alyte des (E							
Sample Identification	Sample Date	Sample Time	Sample Matrix #	# of Cont.	An Pestici						Sample Specific Notes:	ific Notes:
757-6-2016-2	1122/16	03160	3	32	メ						SEE COMMENTS	TENTS
4.4104-0五	-)	DAIR	→	3	لد						SEE COMMENTS	IENTS
						-						
			Field F	Field Filtered (X):	ä							
Preservation Used: 1 = Ice, 2 = HCI; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other_	*HNO3; 5=NaOH; 6= Oth	i.			-1							
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-level 8081A for each sample). ** (SA-モーンのトーン、ルドバモン SAMP で、3年代表していましていません O.SC で アルトキAM ** (SA-モーンのトン・ルドバモン SAMP を Defeata-BHC, Endosulfan I, Endosulfan I, Endosulfan I, Endosulfan Sulfate, Endrin Aldehyde and Methoxychlor.	E. Level II Report. F A'b - と, ハル に C. Chlordane, Delta-B	ED SP K	reporting li	mit and n LETAR osulfan D	ethod detec	tion limit. Pl	ase use agreed SmL* drin Aldehyde	upon analytical ** nd Methoxychl	methods for lov or.	west detection l	mits (standard 808)	A and low-
. Use ECI #TC 6996 – report 2,4'-DDD, 2,4'-DDE, 2,4'-DDT, 4,4'-DDD, 4,4'-DD	2,4'-DDT, 4,4'-DDD, 4	4'-DDE, 4,4	'-DDT, Ald	rin, Alph	a Chlordane	, Dieldrin, E	ıdrin, Gamma (Chlordane, Gan	ıma-BHC, Hept	achlor, Heptac	18, 4,4'-DDT, Aldrin, Alpha Chlordane, Dieldrin, Endrin, Gamma Chlordane, Gamma-BHC, Heptachlor, Heptachlor Epoxide and Toxaphene	харћепе
10.	Company:		Date/Time:	(430	Received by:	7,72		0	Company:		Date/Time: 1/22/16	1430
	<u> </u>		Date/Time:	750	Received by	nellen		0	Company		Date/Time:/	1035
12/20			Date Time	17.30	Recoived by:	in		0	Company:		Date/Time:	DNO :
X = Sardyles released to a secured, locked area.	Jarea,	*			<u></u>	• Sample	- Samples received from a secured, locked area	oured, locked area			,	
					-	-						

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Chain of Custony Accord	-	1.1.	Coothooker EDE required?	roanirade C Ves R No		
CalSciene Environmental Lab	Please send analytic results, electronic deliverables and the original chain-of-custody form to:	ctronic deliverables and the to:	Equis 4-file EDWEDD required?	red? X Yes		
5063 Commercial Circle, Suite H	labresults@weiss.com		Specify analytic/pre	Specify analytic/prep method and detection limit in report.		
Ę,	ajm@weiss.com		Notify us of any an	Notify us of any anomalous peaks in GC or other scans.		870I-I 0 -0I
Fnone: 925-689-9022	Sandweiss.com		Protocol ID/nath:	IM evin Richmond/03b Sampling		COC Number:
	ŀ	Pack 1 1 3				
Weiss Associates		THE THE PART THE				
2200 Powell Street, Suite 925	Sampled by: AJM					
Emeryville, CA 94608	Sample date(s): 1 \	41				Page 1 of 1
(510) 450-6000 Phone	Analysis Turnaround	Time:				
(510) 547-5043 FAX						SDG number:
Job Name: LRT 2015-2016 Annual Storm Water Sampling	Standard					
Levin Richmond Terminal, Address: 402 Wrighl Avenue, Richmond, CA 94804	(Specify Days or Hours)		dyte (E			
7. Sample Identification	Sample Date Time	Sample Matrix # of Cont.	snA Pesticis			Sample Specific Notes:
7.57 -6			ノ			SEE COMMENTS
	J. 89.1	3	×			SEE COMMENTS
7-8107-24		•				
		Field Filtered (X):	*(
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 5=NaOH; 6= Other	INO3; 5=NaOH; 6= Other		1			
Special Instructions/OC Requirements & Comments: Level II Report. Report with reporting limit and method detection limit. Please use agreed upon analytical methods for lowest detection limits (standard 8081A and low-	Level II Report. Report v	ith reporting limit and m	ethod detection li	nit. Please use agreed upon analytica	al methods for lowest detection li	mits (standard 8081A and low-
level 8081A for each sample).		;	3		-	
Use ECI #TC 5158 - report Alpha-BHC, Chlordane, Delta-BHC, Endosulfan I, Endosulfan Sulfate, Endrin Aldenyde and Methoxychlor. Inc. BCI #TC 5158 - report Alpha-BHC, Heptachlor Edvin Heptachlor Epoxide and Toxaphene. Inc. BCI #TC 6066 - report Alpha - Heptachlor Epoxide and Toxaphene.	Chlordane, Delta-BHC, En	dosulfan I, Endosulfan II. '. 4.4'-DDT. Aldrin. Alpha	, Endosultan Sulta Chlordane, Dield	ıte, Endrin Aldenyde and Methoxyci Irin, Endrin, Gamma Chlordane, Ga	nor. mma-BHC, Heptachlor, Heptach	hlor Epoxide and Toxaphene
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Commission by Market 150 110 110 110 110 110 110 110 110 110			Recoived by:		Company:	Date/Time: OAT
released to a secured, locked	irea.			= Samples received from a secured, locked area		

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800-322-5555 www.gso.com

Ship From

CAL SCIENCE- CONCORD ALAN KEMP 5063 COMMERCIAL CIRCLE #H CONCORD, CA 94520

Ship To CEL SAMPLE RECEIVING 7440 LINCOLN WAY GARDEN GROVE, CA 92841

COD: \$0.00 Weight: 0 lb(s) Reference:

HALEY & ALDRICH, WEISS **Delivery Instructions:**

Signature Type: REQUIRED

Tracking #: 530690290





ORC GARDEN GROVE



D92845A



47463570

Print Date: 1/25/2016 3:56 PM

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

Use the "Print Label" button on this page to print the shipping label on a laser or inkjet printer. Securely attach this label to your package, do not cover the barcode.



Calscience

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WORK ORDER NUMBER: 16-01- 1629

SAMPLE RECEIPT CHECKLIST

COOLER ____ OF ____

CLIENT: Weiss Assoc-		DATE: 01	<u> 26</u>	/ 2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC4B (CF: +0.3°C); Temperature (w/o CF): 1 - 6 _ °C (w/o CF): 1	e day of sampling			_
CUSTODY SEAL: Cooler Present and Intact Present but Not Intact Not Pre Sample(s) Present and Intact Present but Not Intact Not Pre		Checke Checke		876 1058
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete Sampling date Sampling time Matrix Number of containers			No	N/A
□ No analysis requested □ Not relinquished □ No relinquished date □ No Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested		 		_ _ _ _
Samples received within holding time Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container	e	0		
Unpreserved aqueous sample(s) received for certain analyses ☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals Container(s) for certain analysis free of headspace	(SM 4500)	🗆		Æ
Tedlar™ bag(s) free of condensation				1
CONTAINER TYPE: Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125AGB □ 125PBznna □ 250AGB □ 250CGB □ 250CGBs □ 250PB □ 250PBn □ 500PB 1AGB □ 1AGBna₂ □ 1AGBs □ 1PB □ 1PBna □ □ □ □ □ Solid: □ 4ozCGJ □ 8ozCGJ □ 16ozCGJ □ Sleeve (□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	500AGB □ 500 □ □ □ □) □ TerraCol rix (stic, and Z = Ziploc	25AGBp	125PB AGJs ————————————————————————————————————	
$s = H_2SO_4$ $u = ultra-pure$ $znna = Zn(CH_3CO_2)_2 + NaOH$		Review	ed by:	778





THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-69924-1 Client Project/Site: LRTC Stormwater

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

Mint RJ Som

Authorized for release by: 2/5/2016 1:27:52 PM

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through Total Access

Have a Question?



Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

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Definitions/Glossary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Glossary

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
ER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
/IDA	Minimum detectable activity
DL	Estimated Detection Limit
MDC	Minimum detectable concentration
/IDL	Method Detection Limit
ΛL	Minimum Level (Dioxin)
IC	Not Calculated
I D	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Pleasanton

2/5/2016

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Case Narrative

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Job ID: 720-69924-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-69924-1

Comments

No additional comments.

Receipt

The samples were received on 1/22/2016 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.3° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: TS1-E-2016-2 (720-69924-1), TS2-E-2016-2 (720-69924-3), TS3-E-2016-2 (720-69924-4) and SW-11-2016-2 (720-69924-5). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-1

Lab Sample ID: 720-69924-3

Lab Sample ID: 720-69924-4

Lab Sample ID: 720-69924-5

Client	Sample	ID: TS'	I-E-2016-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0072	В	0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.021	J	0.040	0.0058	mg/L	1		200.8	Total/NA
Lead	0.0024		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.049		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.23		0.100	0.100	SU		_	9040B	Total/NA

Client Sample ID: TS2-E-2016-2 Lab Sample ID: 720-69924-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0037	В	0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.034	J	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.00089	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.00050		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.057		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.77		0.100	0.100	SU		_	9040B	Total/NA

Client Sample ID: FD-2016-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0093	В	0.0020	0.00060	mg/L	1	_	200.8	Total/NA
Iron	0.068		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.00099	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.00099		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.061		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	7.77		0.100	0.100	SU	1	_	9040B	Total/NA

Client Sample ID: TS3-E-2016-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0020	В	0.0020	0.00060	mg/L		_	200.8	Total/NA
Iron	0.016	J	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0013	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.00054		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.067		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	6.87		0.100	0.100	SU	1		9040B	Total/NA

Client Sample ID: SW-11-2016-2

Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
0.18		0.10	0.10	mg/L		_	200.8	Total/NA
0.0035	В	0.0020	0.00060	mg/L	1		200.8	Total/NA
0.20		0.040	0.0058	mg/L	1		200.8	Total/NA
0.00088	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
0.0029		0.00040	0.000034	mg/L	1		200.8	Total/NA
0.031		0.0070	0.0019	mg/L	1		200.8	Total/NA
	0.18 0.0035 0.20 0.00088 0.0029	0.0035 B 0.20 0.00088 J 0.0029	0.18 0.10 0.0035 B 0.0020 0.20 0.040 0.00088 J 0.0030 0.0029 0.00040	0.18 0.10 0.10 0.0035 B 0.0020 0.0060 0.20 0.040 0.0058 0.00088 J 0.0030 0.00040 0.0029 0.00040 0.000034	0.18 0.10 0.10 mg/L 0.0035 B 0.0020 0.00060 mg/L 0.20 0.040 0.0058 mg/L 0.00088 J 0.0030 0.00040 mg/L 0.0029 0.00040 0.000034 mg/L	0.18 0.10 0.10 mg/L 1 0.0035 B 0.0020 0.00060 mg/L 1 0.20 0.040 0.0058 mg/L 1 0.00088 J 0.0030 0.00040 mg/L 1 0.0029 0.00040 0.00034 mg/L 1	0.18 0.10 0.10 mg/L 1 0.0035 B 0.0020 0.00060 mg/L 1 0.20 0.040 0.0058 mg/L 1 0.00088 J 0.0030 0.00040 mg/L 1 0.0029 0.00040 0.000034 mg/L 1	0.18 0.10 0.10 mg/L 1 200.8 0.0035 B 0.0020 0.00060 mg/L 1 200.8 0.20 0.040 0.0058 mg/L 1 200.8 0.00088 J 0.0030 0.00040 mg/L 1 200.8 0.0029 0.00040 0.000034 mg/L 1 200.8

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-5

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Client Sample ID: SW-11-2016-2 (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	7.99		0.100	0.100	SU	1	_	9040B	Total/NA
Total Suspended Solids	3.5		1.0	1.0	mg/L	1		SM 2540D	Total/NA

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Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-1

Matrix: Water

Client Sample ID: TS1-E-2016-2

Date Collected: 01/22/16 08:20 Date Received: 01/22/16 16:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 19:38	1
Copper	0.0072	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 19:38	1
Iron	0.021	J	0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 19:38	1
Nickel	<0.00040		0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 19:38	1
Lead	0.0024		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 19:38	1
Zinc	0.049		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 19:38	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.23		0.100	0.100	SU			01/22/16 20:26	1
Total Suspended Solids	<1.0		1.0	1.0	mg/L			01/26/16 20:51	1

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Client Sample ID: TS2-E-2016-2

Date Collected: 01/22/16 09:10 Date Received: 01/22/16 16:30

Lab Sample ID: 720-69924-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:19	1
Copper	0.0037	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:19	1
Iron	0.034	J	0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:19	1
Nickel	0.00089	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:19	1
Lead	0.00050		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:19	1
Zinc	0.057		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:19	1

General Chemistry Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		4.0	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.77		0.100	0.100	SU			01/22/16 20:38	1
Total Suspended Solids	<1.0		1.0	1.0	mg/L			01/26/16 20:51	1

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-3

Matrix: Water

CI	ient	Sar	npl	e IE): F	-D	-20	16-2
Пa	to C	ollac	tod:	01/	22/1	16 (19-1	5

Date Received: 01/22/16 16:30

Method: 200.8 - Metals (ICP/MS) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:23	1
Copper	0.0093	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:23	1
Iron	0.068		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:23	1
Nickel	0.00099	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:23	1
Lead	0.00099		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:23	1
Zinc	0.061		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:23	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.77		0.100	0.100	SU			01/22/16 20:41	1
Total Suspended Solids	<1.0		1.0	1.0	mg/L			01/26/16 20:51	1

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Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

4-4

Client Sample ID: TS3-E-2016-2

Date Collected: 01/22/16 08:30 Date Received: 01/22/16 16:30

Analyte

Total Suspended Solids

рН

Lab Sample ID: 720-69924-4

Analyzed

01/22/16 20:44

01/26/16 20:51

Matrix: Water

Method: 200.8 - Metals (ICP/MS)	Danult	O	DI	MDI	11:4	_	Duamanad	A mahamad	Dil Faa
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:28	1
Copper	0.0020	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:28	1
Iron	0.016	J	0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:28	1
Nickel	0.0013	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:28	1
Lead	0.00054		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:28	1
Zinc	0.067		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1

RL

1.0

0.100

RL Unit

1.0 mg/L

0.100 SU

D

Prepared

Result Qualifier

6.87

<1.0

8

9

10

11

Dil Fac

12

13

1 /

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-5

01/26/16 20:51

Matrix: Water

Client Sample ID: SW-11-2016-2

Date Collected: 01/22/16 07:44 Date Received: 01/22/16 16:30

Total Suspended Solids

Method: 200.8 - Metals (ICI	•								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.18		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:33	1
Copper	0.0035	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:33	1
Iron	0.20		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:33	1
Nickel	0.00088	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:33	1
Lead	0.0029		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:33	1
Zinc	0.031		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:33	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
н	7.99		0.100	0.100	SU			01/22/16 21:10	1

1.0

3.5

1.0 mg/L

9

10

15

TestAmerica Job ID: 720-69924-1

Client: Weiss Associates Project/Site: LRTC Stormwater

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-210227/14-A

Matrix: Water

Analysis Batch: 210461

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 210227

	IVID	IAID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 19:29	1
Copper	0.00127	J	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 19:29	1
Iron	<0.0058		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 19:29	1
Nickel	<0.00040		0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 19:29	1
Lead	<0.000034		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 19:29	1
Zinc	<0.0019		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 19:29	1

Result Qualifier

0.923

0.0960

0.0948

0.0945

0.0991

9.69

Unit

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

Added

1.00

0.100

0.100

0.100

0.100

10.0

Lab Sample ID: LCS 580-210227/15-A

Matrix: Water

Analyte

Copper

Iron

Nickel

Lead

Zinc

Aluminum

Analysis Batch:

210461		
	Spike	LCS LCS

MD MD

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 210227

%Rec. D %Rec Limits 92 85 - 115 85 - 115 96 97 85 - 115 95 85 - 115 95 85 - 115 99 85 - 115

Lab Sample ID: LCSD 580-210227/16-A

Matrix: Water

Analysis Batch: 210461

Client	Sample	ID: L	.ab	Control	Samp	le	Dup
					_		

Prep Type: Total/NA Prep Batch: 210227

		Spike	LCSD	LCSD				%Rec.		RPD
An	alyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Alu	minum	1.00	0.923		mg/L		92	85 - 115	0	20
Co	pper	0.100	0.0944		mg/L		94	85 - 115	2	20
Iror	า	10.0	9.56		mg/L		96	85 - 115	1	20
Nic	kel	0.100	0.0929		mg/L		93	85 - 115	2	20
Lea	ad	0.100	0.0941		mg/L		94	85 - 115	0	20
Zin	С	0.100	0.0969		mg/L		97	85 - 115	2	20

Lab Sample ID: 720-69924-1 MS

Matrix: Water

Analysis Batch: 210461

Client Sample ID: TS1-E-2016-2

Prep Type: Total/NA Prep Batch: 210227

7 maryolo Batom 210101	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aluminum	<0.10		1.00	0.896		mg/L		90	70 - 130
Copper	0.0072	В	0.100	0.0956		mg/L		88	70 - 130
Iron	0.021	J	10.0	9.09		mg/L		91	70 - 130
Nickel	<0.00040		0.100	0.0892		mg/L		89	70 - 130
Lead	0.0024		0.100	0.0951		mg/L		93	70 - 130
Zinc	0.049		0.100	0.138		mg/L		89	70 - 130

Lab Sample ID: 720-69924-1 MSD

<0.10

Matrix: Water

Analyte

Aluminum

Analysis Batch: 210461

Client Sample ID: TS1-E-2016-2 Prep Type: Total/NA Prep Batch: 210227 Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit

mg/L

0.923

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70 - 130

92

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1.00

2/5/2016

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Client Sample ID: TS1-E-2016-2

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 316617

Method: 200.8 - Metals (ICP/MS) (Continued)

	Lab Sample ID: 720-69924-	-1 MSD						Cli	ent Sar	nple ID: T	S1-E-2	016-2
	Matrix: Water									Prep Ty	pe: Tot	al/NA
I	Analysis Batch: 210461									Prep Ba	atch: 2	10227
	-	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Copper	0.0072	В	0.100	0.0978		mg/L		91	70 - 130	2	20
l	Iron	0.021	J	10.0	9 41		ma/l		94	70 - 130	4	20

Iron 10.0 mg/L Nickel < 0.00040 0.100 0.0916 92 3 20 mg/L 70 - 130Lead 0.0024 0.100 0.0984 mg/L 96 70 - 130 20 Zinc 0.049 0.100 0.138 mg/L 89 70 - 130 20

Lab Sample ID: 720-69924-1 DU

Matrix: Water Analysis Batch: 210461							Prep Type: Tot Prep Batch: 2	
7	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Aluminum	<0.10		<0.10		mg/L		NC	20
Copper	0.0072	В	0.00708		mg/L		2	20
Iron	0.021	J	0.0348	J F5	mg/L		49	20
Nickel	<0.00040		0.000434	J	mg/L		NC	20
Lead	0.0024		0.00238		mg/L		0.08	20
Zinc	0.049		0.0489		mg/L		0.06	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 490-316617/1-A

Matrix: Water

Analysis Batch: 316633

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4	4.0	1.4 mg/L		02/03/16 10:15	02/03/16 10:15	1

Lab Sample ID: LCS 490-316617/2-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA Analysis Batch: 316633 Prep Batch: 316617** LCS LCS Spike %Rec.

Added Result Qualifier Unit %Rec Limits 20.8 64 - 132 SGT-HEM 17.1 mg/L

Lab Sample ID: 720-69924-1 MS Client Sample ID: TS1-E-2016-2 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 316633 Prep Batch: 316617 Spike MS MS Sample Sample %Rec.

Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits SGT-HEM <1.4 20.4 16.9 mg/L 83 64 - 132

Method: 9040B - pH

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 720-196100/1 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196100

Spike LCS LCS %Rec. Added D

Result Qualifier Limits **Analyte** Unit %Rec 7.00 6.900 SU рН 99 99 - 101

TestAmerica Pleasanton

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QC Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-69924-1
Project/Site: LRTC Stormwater

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 720-196321/3

Matrix: Water

Client Sample ID: Method Blank

Prep Type: Total/NA

Analysis Batch: 196321

 Analyte
 Result
 Qualifier
 RL
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Total Suspended Solids
 <1.0</td>
 1.0
 1.0
 mg/L
 01/26/16 20:51
 1

Lab Sample ID: LCS 720-196321/1

Matrix: Water

Analysis Batch: 196321

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

413

mg/L

83

69 - 117

Spike LCS LCS %Rec.

Analyte Added Result Qualifier Unit D %Rec Limits

500

Lab Sample ID: LCSD 720-196321/2

Matrix: Water

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analysis Batch: 196321

Total Suspended Solids

Spike LCSD LCSD %Rec. **RPD** Added RPD Limit Analyte Result Qualifier D %Rec Limits Unit **Total Suspended Solids** 500 440 mg/L 88

TestAmerica Pleasanton

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QC Association Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Metals

Prep Batch: 210227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	200.8	
720-69924-1 DU	TS1-E-2016-2	Total/NA	Water	200.8	
720-69924-1 MS	TS1-E-2016-2	Total/NA	Water	200.8	
720-69924-1 MSD	TS1-E-2016-2	Total/NA	Water	200.8	
720-69924-2	TS2-E-2016-2	Total/NA	Water	200.8	
720-69924-3	FD-2016-2	Total/NA	Water	200.8	
720-69924-4	TS3-E-2016-2	Total/NA	Water	200.8	
720-69924-5	SW-11-2016-2	Total/NA	Water	200.8	
LCS 580-210227/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-210227/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-210227/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 210461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	200.8	210227
720-69924-1 DU	TS1-E-2016-2	Total/NA	Water	200.8	210227
720-69924-1 MS	TS1-E-2016-2	Total/NA	Water	200.8	210227
720-69924-1 MSD	TS1-E-2016-2	Total/NA	Water	200.8	210227
720-69924-2	TS2-E-2016-2	Total/NA	Water	200.8	210227
720-69924-3	FD-2016-2	Total/NA	Water	200.8	210227
720-69924-4	TS3-E-2016-2	Total/NA	Water	200.8	210227
720-69924-5	SW-11-2016-2	Total/NA	Water	200.8	210227
LCS 580-210227/15-A	Lab Control Sample	Total/NA	Water	200.8	210227
LCSD 580-210227/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	210227
MB 580-210227/14-A	Method Blank	Total/NA	Water	200.8	210227

General Chemistry

Analysis Batch: 196100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	9040B	
720-69924-2	TS2-E-2016-2	Total/NA	Water	9040B	
720-69924-3	FD-2016-2	Total/NA	Water	9040B	
720-69924-4	TS3-E-2016-2	Total/NA	Water	9040B	
720-69924-5	SW-11-2016-2	Total/NA	Water	9040B	
LCS 720-196100/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 196321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	SM 2540D	_ :
720-69924-2	TS2-E-2016-2	Total/NA	Water	SM 2540D	
720-69924-3	FD-2016-2	Total/NA	Water	SM 2540D	
720-69924-4	TS3-E-2016-2	Total/NA	Water	SM 2540D	
720-69924-5	SW-11-2016-2	Total/NA	Water	SM 2540D	
LCS 720-196321/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-196321/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-196321/3	Method Blank	Total/NA	Water	SM 2540D	

TestAmerica Pleasanton

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QC Association Summary

Client: Weiss Associates TestAmerica Job ID: 720-69924-1
Project/Site: LRTC Stormwater

General Chemistry (Continued)

Prep Batch: 316617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	1664A	
720-69924-1 MS	TS1-E-2016-2	Total/NA	Water	1664A	
720-69924-2	TS2-E-2016-2	Total/NA	Water	1664A	
720-69924-3	FD-2016-2	Total/NA	Water	1664A	
720-69924-4	TS3-E-2016-2	Total/NA	Water	1664A	
720-69924-5	SW-11-2016-2	Total/NA	Water	1664A	
LCS 490-316617/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 490-316617/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 316633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69924-1	TS1-E-2016-2	Total/NA	Water	1664A	316617
720-69924-1 MS	TS1-E-2016-2	Total/NA	Water	1664A	316617
720-69924-2	TS2-E-2016-2	Total/NA	Water	1664A	316617
720-69924-3	FD-2016-2	Total/NA	Water	1664A	316617
720-69924-4	TS3-E-2016-2	Total/NA	Water	1664A	316617
720-69924-5	SW-11-2016-2	Total/NA	Water	1664A	316617
LCS 490-316617/2-A	Lab Control Sample	Total/NA	Water	1664A	316617
MB 490-316617/1-A	Method Blank	Total/NA	Water	1664A	316617

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Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-1

Matrix: Water

Client Sample ID: TS1-E-2016-2

Date Collected: 01/22/16 08:20 Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 19:38	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:26	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196321	01/26/16 20:51	EYT	TAL PLS

Client Sample ID: TS2-E-2016-2 Lab Sample ID: 720-69924-2

Date Collected: 01/22/16 09:10

Matrix: Water

Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:19	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:38	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196321	01/26/16 20:51	EYT	TAL PLS

Client Sample ID: FD-2016-2 Lab Sample ID: 720-69924-3 **Matrix: Water**

Date Collected: 01/22/16 09:15 Date Received: 01/22/16 16:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:23	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:41	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196321	01/26/16 20:51	EYT	TAL PLS

Client Sample ID: TS3-E-2016-2 Lab Sample ID: 720-69924-4 Date Collected: 01/22/16 08:30 **Matrix: Water**

Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:28	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:44	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196321	01/26/16 20:51	EYT	TAL PLS

TestAmerica Pleasanton

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Lab Chronicle

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID: 720-69924-5

Matrix: Water

Client Sample ID: SW-11-2016-2

Date Collected: 01/22/16 07:44 Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:33	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 21:10	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196321	01/26/16 20:51	EYT	TAL PLS

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

TestAmerica Pleasanton

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Certification Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Prog	gram	EPA Region	Certification ID 2496	Expiration Date 01-31-17
Analysis Method	Prep Method	<u>Matrix</u>	Analyt	e	

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	02-29-16 *
Alaska (UST)	State Program	10	UST-087	07-24-16
Arizona	State Program	9	AZ0473	05-05-16
Arkansas DEQ	State Program	6	88-0737	04-25-16
California	State Program	9	2938	10-31-16
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200010	12-09-16
lowa	State Program	7	131	04-01-16 *
Kansas	NELAP	7	E-10229	05-31-16
Kentucky (UST)	State Program	4	19	06-30-16
Kentucky (WW)	State Program	4	90038	12-31-16
Louisiana	NELAP	6	30613	06-30-16
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-16 *
Massachusetts	State Program	1	M-TN032	06-30-16
Minnesota	NELAP	5	047-999-345	12-31-16
Mississippi	State Program	4	N/A	06-30-16
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-16
New Hampshire	NELAP	1	2963	10-09-16
New Jersey	NELAP	2	TN965	06-30-16
New York	NELAP	2	11342	03-31-16
North Carolina (WW/SW)	State Program	4	387	12-31-16
North Dakota	State Program	8	R-146	06-30-16
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-16
Oregon	NELAP	10	TN200001	04-27-16
Pennsylvania	NELAP	3	68-00585	06-30-16
Rhode Island	State Program	1	LAO00268	12-30-15 *
South Carolina	State Program	4	84009 (001)	02-28-16 *
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-16
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-16
Virginia	NELAP	3	460152	06-14-16
Washington	State Program	10	C789	07-19-16
West Virginia DEP	State Program	3	219	02-28-16 *
Wisconsin	State Program	5	998020430	08-31-16

^{*} Certification renewal pending - certification considered valid.

TestAmerica Pleasanton

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Certification Summary

Client: Weiss Associates TestAmerica Job ID: 720-69924-1 Project/Site: LRTC Stormwater

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region Certification ID	Expiration Date
Wyoming (UST)	A2LA	8 453.07	02-29-16 *

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

^{*} Certification renewal pending - certification considered valid.

TestAmerica Pleasanton

Method Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL NSH
9040B	рН	SW846	TAL PLS
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates Project/Site: LRTC Stormwater TestAmerica Job ID: 720-69924-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-69924-1	TS1-E-2016-2	Water	01/22/16 08:20	01/22/16 16:30
720-69924-2	TS2-E-2016-2	Water	01/22/16 09:10	01/22/16 16:30
720-69924-3	FD-2016-2	Water	01/22/16 09:15	01/22/16 16:30
720-69924-4	TS3-E-2016-2	Water	01/22/16 08:30	01/22/16 16:30
720-69924-5	SW-11-2016-2	Water	01/22/16 07:44	01/22/16 16:30

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		 Samples received from a secured, locked area 	 Samples receiv 			rea	🗵 = Samples released to a secured, locked area
Date/i ine	Company:		kecerved by:	Date/Inne.	- La	Company.	Keimquisnea-by:
Date Limes J. Co	Company A	0	Received by Call	630	Da	Company.	Euro
1.25 1/ 12S	Company	0	Ser So	Date/Time: R	Dai 11	Company.	Relinguisticity / MM
3.3%	2,4,3,30		-				
b, and Zn).	isted above (Al, Cu, Fe, Ni, Pi	and report only the metals li	thod detection limit. Analyze	orting limit and me	Report with rep	Level II Report.	Special Instructions/QC Requirements & Comments:
			1 1 1,2 1,4		her	NO3; 5=NaOH; 6= Ot	Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other
	-			Field Fillered (X):			
							/20-69924 Chairl of Custody
							730 60034 (1845)
	-					- 	-
			۲ ۲ ۲	7	0830	4	753-6-2016-2
2							1536204- AN
			Υ Υ Χ	*	2180		2-910-5
			x	7	03,10		752-6-2016-2
			x	3	0220	1/22/16	151-6-2016-2
Sample Specific Notes:	_		pH (E Total Oil & Total (EPA	Sample	Sample S Time N	Sample Date	Sample Identification
	-		PA 90 Suspe	13)	(Specify Days or Hours)	(S)	Address: 402 Wright Avenue, Richmond, CA 94804
			40B) nded e (BI	2894	Standard		Job Name: LRT 2015-2016 Annual Storm Water Sampling
第一次 · · · · · · · · · · · · · · · · · · ·			Solic A 16 Cu, I				(510) 547-5043 FAX
	-		ls (S 		Analysis Turnaround Time:	Analysi	(510) 450-6000 Рьопе
Page 1 of 1			M 2:	ř.	1122/16	Sample date(s):	Emeryville, CA 94608
			T-HI		AJM	Sampled by:	2200 Powell Street, Suite 925
	_		EMI)	sk 1.1.3	426-2026.01 Task 1.1.3	Project ID:	Weiss Associates
COC Number:		J^Levm Richmond\03b_Sampling	Protocol ID/path: J-\Levin Richt	(Pt	Scott Bourne	Project Manager:	Client Contact
	:	ons or problems.	Call immediately with any questions or problems.			sab@weiss.com	Phone: 925-484-1919 ext.137
		d? SIYES NO	Equis 4 the EDWEDD required? Specify analytic/prep method and detection. Northly its of any anomalous nears in GC or		stody form to: m	ongmal cham-of-custody form to: labresults@weiss.com aim@weiss.com	LestAmerica 1220 Quarry Lane Pleasanton CA 94566
•		LI Yes	GeoTracker EDF required?	Please send analytic results, electronic deliverables and the	results, electronic	Piease send analytic	
1/2/			INSTRUCTIONS FOR LAB PERSONNEL:				Chain of Custody Record

(510) 547-5043

(d) 450-6000

THE REAL

🖾 – Samples released to a secured, locked area

Samples received from a secured, locked area

Chain of Custody Record

TestAmerica Pleasanton											=	7 2	- > <	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
1220 Quarry Lane Pleasanton, CA 94566 Pleasanton, CA 94566	₽ Q	nain of C	Chain of Custody Record	ecord								SOVE TENE	SR IN ENV	THE LEADER IN ENVIRONMENTAL TESTING
Client Information (Sub Contract Lab)	Sampler:		Lab Pi Smitt	Lab PM: Smith, Micah				Carrier Tracking No(s):	acking No	(s):		COC No: 720-27481.1	1.	
	Phone:		E-Mail: micah	E-Mail: micah.smith@testamericainc.	stamerica	inc.com						Page: Page 1 of 1	1	
Company: TestAmerica Laboratories, Inc						Analysis		Requested	_			Job #: 720-69924-1	4-1	
Address: 2960 Foster Creighton Drive,	Due Date Requested: 2/3/2016										<u> </u>		on Code	(S:
City. Nashville	TAT Requested (days):	ÿ									# . 33	B - NaOH C - Zn Acetate		N - None O - AsNaO2
Siate, Zip: TN, 37204			÷											P-Na2O4S Q-Na2SO3
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO#:										3	G - Amchlor H - Ascorbic Acid	Acid	S - H2SO4 T - TSP Dodecahydrate
	WO#:			Va)										U - Acetone V - MCAA
Project Name: LRTC Stormwater	Project #: 72009078			es or	•		<u>-</u>				4 m			W - pn 4-5 Z - other (specify)
Site:	SSOW#:			ISD (Y							A	Other:		
			ole Matrix e (W≐water, e S≕solid,	i Filtered orm MS/N A/1664A_S							l Number	- 3 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4		
Sample Identification - Client ID (Lab ID)	Sample Date	Time G=grab)	ab) BT=Tissue, A=Air)	Per							+4.	Ì	cial Ins	Special Instructions/Note:
TS1-E-2016-2 (720-69924-1)	1/22/16		Water	×	- Cont. of Action	7 m 20 m 20 m 20 m 20 m 20 m 20 m 20 m 2	ne William	hysia is blades	o Com Carrier	15. 15. 15. 15. 15. 15. 15. 15. 15. 15.	. N	2		
TS2-E-2016-2 (720-69924-2)	1/22/16	09:10	Water	×					-		Ñ.	\$1.		
FD-2016-2 (720-69924-3)	1/22/16	09:15	Water	×							N			
TS3-E-2016-2 (720-69924-4)	1/22/16	08:30 Pacific	Water	×							در	** T.		
SW-11-2016-2 (720-69924-5)	1/22/16	07:44 Pacific	Water	×							EXE	7.75		
												*36-17		
											,			
											16 T	Š K		
											160			
											À	13.		
Possible Hazard Identification Unconfirmed	-	-	-	Sampl	Sample Disposal (A f	† fe	may be a	be assessed if samples	if sam,		are retained	longer	than 1 n	month)
Deliverable Requested: I, II, III, IV, Other (specify)				Specia	Special Instructions/QC Requirements:	ns/QC Re	quiremer	īs			İ.			
Empty Kit Relinquished by:		Date:		Time:				Met	Method of Shipment:	pment				
Relinquished by:	Date/Time:	16/600	Company	Rec	Received by: Received by:	X			D. D.	Date/Time: /-26-/ Date/Time:	160	1000	_	Company
Relinquished by:	Date/Time:		Company	Rec	Received by:				D	Date/Time:	İ			Company
Custody Seals Intact \[\Delta \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	-			Coc	Cooler Temperature(s)	റ്	and Other Remarks:		Š	0				



720-69924

COOLER RECEIPT FORM

Cooler Received/Opened On <u>1/26/2016 @ 1000</u> ・27・化 の 15号ン	
Time Samples Removed From Cooler Time Samples Placed In Storage / 6 O	(2 Hour Window)
1. Tracking #(last 4 digits, FedEx) Courier: _FedEx_	
IR Gun ID 97310166 pH Strip Lot HC554612 Chlorine Strip Lot 072815A	
2. Temperature of rep. sample or temp blank when opened:Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen?	YES NO.(NA)
4. Were custody seals on outside of cooler?	YES. NO. NA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	YESNO. (NA)
6. Were custody papers inside cooler?	(ES).NONA
certify that opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES NO and Intact	YESNONA
Were these signed and dated correctly?	YESNO. NA
8. Packing mat'l used Rubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pape	r Other None
9. Cooling process: (Ice-pack lce (direct contact) Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	(YES).NONA
11. Were all container labels complete (#, date, signed, pres., etc)?	(ES)NONA
12. Did all container labels and tags agree with custody papers?	YES).NONA
13a. Were VOA vials received?	YES. NA
b. Was there any observable headspace present in any VOA vial?	YESNONA
14. Was there a Trip Blank in this cooler? YESNO (NA) If multiple coolers, sequen	ce #
certify that I unloaded the cooler and answered questions 7-14 (intial)	mons
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO MA
b. Did the bottle labels indicate that the correct preservatives were used	ES.NONA
16. Was residual chlorine present?	YESNO(A
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	MDM
17. Were custody papers properly filled out (ink, signed, etc)?	ESNONA
18. Did you sign the custody papers in the appropriate place?	(YES)NONA
19. Were correct containers used for the analysis requested?	XES).NONA
20. Was sufficient amount of sample sent in each container?	XES).NONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	Mon
certify that I attached a label with the unique LIMS number to each container (intial)	WDW
21. Were there Non-Conformance issues at login? YES. NO Was a NCM generated? YES	NO#

TestAmerica Pleasanton
1220 Quary Lane

Samuel I ab DM:		Chain of Custody Record
Carrier Tracking Mo(s)		
COC No.	THE LEADER IN EXMERONAGENTA	

		ク ジ ジ ジ ジ ジ ジ ジ ・ ジ ・ ジ ・ ジ ・ ジ ・ ジ ・ ジ	and Other Remarks:	Cooler Temperature(s) °C	Cooler Tem					~	Custody Seals Intact Custody Seal No.: A Yes A No
Company	Date/Time:	Date			Received by:		Company			Date/Time:	Relinquished by:
Company		Date	10	7.	Received by:		Company			Date/Time:	Relinquished by:
930 Company	126/16 B	Date/	2000	ZF	Received by:		Company	7	1	Date/Ime:	Relinquished by:
	nent	Method of Shipment		>		Time:			Date:	í	Empty Kit Relinquished by:
		** 	Requirements	Special Instructions/QC	ecial Instru	Sp					Deliverable Requested: I, II, III, IV, Other (specify)
Months	Archive For	Disposal By Lab	Dis	Return To Client	Return						Cossible nazaro idenutication Unconfirmed
than 1 month)	es are retained longer than 1 month)	Sample Disposal (A fee may be assessed if samples	e may be ass	osal (A fe	mole Disc			-	-		Donais Livery Constitution
				_			+	-	+		
	34										
							:	 			
								; ; ;			
	2 ma 3 30 2	 			×		Water	ic 4	07:44 Pacific	1/22/16	SW-11-2016-2 (720-69924-5)
	***				×		Water	0 ic	08:30 Pacific	1/22/16	TS3-E-2016-2 (720-69924-4)
	**************************************				×		Water	සි' හ	09:15 Pacific	1/22/16	FD-2016-2 (720-69924-3)
	, , , , , , , , , , , , , , , , , , ,				×		Water	O Ic	09:10 Pacific	1/22/16	TS2-E-2016-2 (720-69924-2)
					X		Water	ic 0	08:20 Pacific	1/22/16	TS1-E-2016-2 (720-69924-1)
	X					X	Preservation Code:	<u>/\</u>		X	· · · · · · · · · · · · · · · · · · ·
Special Instructions/Note:	Total Numbe				200.8_CWA/20 200.8	Field Filtered Perform MS/	e Matrix (W=water, S=solid, p, O=waste(oil,)) BT=Tissue, A=Air	Sample Type ole (C=comp, e G=grab)	Sample te Time	Sample Date	Sample Identification - Client ID (Lab ID)
	r of co Other:									SSOW#:	Site:
										Project #: 72009078	Project Name: LRTC Stormwater
U - Acetone ter V - MCAA W - nh 4-5	J - Jce									WO#	Email:
	G - Amchlor H - Ascorbic Acid									PO#:	Phone: 253-922-2310(Tel) 253-922-5047(Fax)
Acid P-Na2C4S O4 Q-Na2SO3 R-Na2S2SO3	E - NaHSO4										State, Zip: WA, 98424
itate									1 (days):	TAT Requested (days):	City: Tacoma
Preservation Codes: A - HCL M - Hexane	Preserva A-HCL				by				ested:	Due Date Requested: 2/3/2016	Address: 5755 8th Street East, ,
24-1	Job #: 720-69924-1	Requested	ysis	Ana							Company: TestAmerica Laboratories, inc.
of 1	Page: Page 1 of 1		ח	E-Mail: micah.smith@testamericainc.com	h@testam	E-Mail: micah.smit	пп			Phone:	1
82.1	51.0	Carrier Tracking No(s):			ah	Lab PM: Smith, Micah	O L			Sampler.	Client Information (Sub Contract Lab)
THE LEADER IN ENWERDRIVENTAL TESTING											Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

Client: Weiss Associates Job Number: 720-69924-1

Login Number: 69924 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Creator: Arauz, Dennis		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-69924-1

List Source: TestAmerica Nashville
List Number: 3
List Creation: 01/27/16 03:59 PM

Creator: McBride, Mike

Creator. Wichitae, wirke		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-69924-1

List Source: TestAmerica Seattle
List Number: 2
List Creation: 01/26/16 12:47 PM

Creator: Vance, Diane R

oreator. Varice, Diane IX		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-69925-1

Client Project/Site: LRTC 2014-2015 Annual Stormwater

For:

Weiss Associates 2200 Powell Street Suite 925 Emeryville, California 94608

Attn: Mr. Scott Bourne

2/5/2016 1:35:08 PM

Authorized for release by:

Micah Smith, Project Manager II (925)484-1919

micah.smith@testamericainc.com

LINKS

Review your project results through

Have a Question?



Visit us at: www.testamericainc.com This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

Not detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Practical Quantitation Limit

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Quality Control

Relative error ratio

TestAmerica Job ID: 720-69925-1

Qualifiers

Metals

Qualifier	Qualifier Description
В	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

ND PQL

QC RER

RL

RPD

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC.	Not Calculated

Case Narrative

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Job ID: 720-69925-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-69925-1

Comments

No additional comments.

Receipt

The samples were received on 1/22/2016 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.3° C and 2.4° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 1664A: Analysis for Hexane Extractable Material (HEM) was performed for the following samples: TS2-I-2016-2 (720-69925-2) and TS3-I-2016-2 (720-69925-3). Since the HEM result(s) was below the reporting limit (RL), the result(s) for Silica Gel Treated - Hexane Extractable Material (SGT-HEM) was reported as a non-detect. All HEM quality control criteria were met.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Detection Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Client Sample ID: TS1-I-2016-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1.6		0.10	0.10	mg/L		_	200.8	Total/NA
Copper	0.067	В	0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	8.7		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.018		0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.43		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	1.3		0.0070	0.0019	mg/L	1		200.8	Total/NA
SGT-HEM	2.2	J	3.9	1.4	mg/L	1		1664A	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.74		0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	750		10	10	mg/L	1		SM 2540D	Total/NA

Client Sample ID: TS2-I-2016-2

Lab Sample ID: 720-69925-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.21		0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.0099	В	0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	0.90		0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0017	J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0065		0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.078		0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
рН	7.71		0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	23		2.0	2.0	mg/L	1		SM 2540D	Total/NA

Client Sample ID: TS3-I-2016-2

Lab Sample ID: 720-69925-3

Analyte	Result Quali	fier RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.24	0.10	0.10	mg/L	1	_	200.8	Total/NA
Copper	0.0072 B	0.0020	0.00060	mg/L	1		200.8	Total/NA
Iron	0.51	0.040	0.0058	mg/L	1		200.8	Total/NA
Nickel	0.0017 J	0.0030	0.00040	mg/L	1		200.8	Total/NA
Lead	0.0096	0.00040	0.000034	mg/L	1		200.8	Total/NA
Zinc	0.065	0.0070	0.0019	mg/L	1		200.8	Total/NA
Analyte	Result Quali	fier RL	RL	Unit	Dil Fac	D	Method	Prep Type
pH	7.35	0.100	0.100	SU		_	9040B	Total/NA
Total Suspended Solids	4.1	1.0	1.0	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-69925-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Client Sample ID: TS1-I-2016-2

Date Collected: 01/22/16 08:12 Date Received: 01/22/16 16:30 Lab Sample ID: 720-69925-1

Matrix: Water

Method: 200.8 - Metals (ICF Analyte	P/MS) Result Qualif	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.6	0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:37	1
Copper	0.067 B	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:37	1
Iron	8.7	0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:37	1
Nickel	0.018	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:37	1
Lead	0.43	0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:37	1
Zinc	1.3	0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:37	1
General Chemistry	Result Qualif	ier RI	MDI	Unit	D	Prenared	Analyzed	Dil Fac

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	2.2	J	3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.74		0.100	0.100	SU			01/22/16 20:51	1
Total Suspended Solids	750		10	10	mg/L			01/27/16 22:04	1

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Client Sample Results

Client: Weiss Associates TestAmerica Job ID: 720-69925-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Client Sample ID: TS2-I-2016-2 Lab Sample ID: 720-69925-2

Date Collected: 01/22/16 07:54 **Matrix: Water** Date Received: 01/22/16 16:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.21		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:42	1
Copper	0.0099	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:42	1
Iron	0.90		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:42	1
Nickel	0.0017	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:42	1
Lead	0.0065		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:42	1
Zinc	0.078		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:42	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.71		0.100	0.100	SU			01/22/16 20:57	1
Total Suspended Solids	23		2.0	2.0	mg/L			01/27/16 22:04	1

Client Sample Results

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

Lab Sample ID: 720-69925-3

TestAmerica Job ID: 720-69925-1

Matrix: Water

Client Sample ID: TS3-I-2016-2

Date Collected: 01/22/16 07:55 Date Received: 01/22/16 16:30

Method: 200.8 - Metals (ICP/MS) Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.24		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 20:46	1
Copper	0.0072	В	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 20:46	1
Iron	0.51		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 20:46	1
Nickel	0.0017	J	0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 20:46	1
Lead	0.0096		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 20:46	1
Zinc	0.065		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 20:46	1
_ General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
SGT-HEM	<1.4		3.9	1.4	mg/L		02/03/16 10:15	02/03/16 10:15	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.35		0.100	0.100	SU			01/22/16 20:59	1
Total Suspended Solids	4.1		1.0	1.0	mg/L			01/27/16 22:04	1

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Client: Weiss Associates TestAmerica Job ID: 720-69925-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-210227/14-A

Analysis Batch: 210461

Matrix: Water

Client Sample ID: Method Blank Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

97

85 - 115

Prep Batch: 210227

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<0.10		0.10	0.10	mg/L		01/26/16 13:03	01/27/16 19:29	1
Copper	0.00127	J	0.0020	0.00060	mg/L		01/26/16 13:03	01/27/16 19:29	1
Iron	<0.0058		0.040	0.0058	mg/L		01/26/16 13:03	01/27/16 19:29	1
Nickel	<0.00040		0.0030	0.00040	mg/L		01/26/16 13:03	01/27/16 19:29	1
Lead	<0.000034		0.00040	0.000034	mg/L		01/26/16 13:03	01/27/16 19:29	1
Zinc	<0.0019		0.0070	0.0019	mg/L		01/26/16 13:03	01/27/16 19:29	1

Lab Sample ID: LCS 580-210227/15-A **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA**

Analyte

Copper

Analyte

Copper

Iron Nickel

Lead

Zinc

Aluminum

Analysis Batch: 210461

Prep Batch: 210227 LCS LCS Spike %Rec. Added Result Qualifier Unit %Rec Limits 0.923 1.00 mg/L 92 85 - 115 85 - 115 0.100 0.0960 mg/L 96 9.69 97 85 - 115 10.0 mg/L

mg/L

mg/L

Iron Nickel 0.100 0.0948 mg/L 95 85 - 115 Lead 0.100 0.0945 mg/L 95 85 - 115 Zinc 0.100 0.0991 mg/L 99 85 - 115

0.100

Lab Sample ID: LCSD 580-210227/16-A

Matrix: Water

Prep Type: Total/NA **Analysis Batch: 210461** Prep Batch: 210227 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit D %Rec Limits RPD Limit Aluminum 1.00 0.923 mg/L 85 - 115 0 20 92 0.100 0.0944 mg/L 94 85 - 115 2 20 10.0 9.56 mg/L 96 85 - 115 20 0.100 0.0929 93 85 - 115 20 mg/L 85 - 115 0.100 0.0941 mg/L 94 0 20

0.0969

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 490-316617/1-A **Client Sample ID: Method Blank Matrix: Water**

SGT-HEM

Analysis Batch: 316633

MR MR

MD MD

Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac 4.0 02/03/16 10:15 02/03/16 10:15 SGT-HEM <1.4 1.4 mg/L

Lab Sample ID: LCS 490-316617/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA **Analysis Batch: 316633** Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec

17.1

20.8

TestAmerica Pleasanton

2/5/2016

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Prep Type: Total/NA **Prep Batch: 316617**

Prep Batch: 316617

TestAmerica Job ID: 720-69925-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Method: 9040B - pH

Client: Weiss Associates

Lab Sample ID: LCS 720-196100/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196100

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 7.00 6.900 SU рН 99 99 - 101

Method: SM 2540D - Solids, Total Suspended (TSS)

Client Sample ID: Method Blank Lab Sample ID: MB 720-196406/3 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196406

MB MB RL **RL** Unit Analyte Result Qualifier Analyzed Dil Fac Prepared **Total Suspended Solids** <1.0 1.0 1.0 mg/L 01/27/16 22:04

Lab Sample ID: LCS 720-196406/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196406

Spike LCS LCS %Rec. Analyte Added Result Qualifier Limits **Total Suspended Solids** 500 415 83 69 - 117 mg/L

Lab Sample ID: LCSD 720-196406/2 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 196406

LCSD LCSD Spike %Rec. **RPD** Added Result Qualifier Unit D %Rec Limits RPD Limit **Total Suspended Solids** 500 448 mg/L 90 69 - 117

Lab Sample ID: 720-69925-1 DU Client Sample ID: TS1-I-2016-2 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 196406

DU DU Sample Sample **RPD** Analyte Result Qualifier Result Qualifier Unit RPD Limit D Total Suspended Solids 750 740 10 mg/L

2/5/2016

QC Association Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Metals

Prep Batch: 210227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	200.8	
720-69925-2	TS2-I-2016-2	Total/NA	Water	200.8	
720-69925-3	TS3-I-2016-2	Total/NA	Water	200.8	
LCS 580-210227/15-A	Lab Control Sample	Total/NA	Water	200.8	
LCSD 580-210227/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	
MB 580-210227/14-A	Method Blank	Total/NA	Water	200.8	

Analysis Batch: 210461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	200.8	210227
720-69925-2	TS2-I-2016-2	Total/NA	Water	200.8	210227
720-69925-3	TS3-I-2016-2	Total/NA	Water	200.8	210227
LCS 580-210227/15-A	Lab Control Sample	Total/NA	Water	200.8	210227
LCSD 580-210227/16-A	Lab Control Sample Dup	Total/NA	Water	200.8	210227
MB 580-210227/14-A	Method Blank	Total/NA	Water	200.8	210227

General Chemistry

Analysis Batch: 196100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	9040B	
720-69925-2	TS2-I-2016-2	Total/NA	Water	9040B	
720-69925-3	TS3-I-2016-2	Total/NA	Water	9040B	
LCS 720-196100/1	Lab Control Sample	Total/NA	Water	9040B	

Analysis Batch: 196406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	SM 2540D	
720-69925-1 DU	TS1-I-2016-2	Total/NA	Water	SM 2540D	
720-69925-2	TS2-I-2016-2	Total/NA	Water	SM 2540D	
720-69925-3	TS3-I-2016-2	Total/NA	Water	SM 2540D	
LCS 720-196406/1	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 720-196406/2	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
MB 720-196406/3	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 316617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	1664A	
720-69925-2	TS2-I-2016-2	Total/NA	Water	1664A	
720-69925-3	TS3-I-2016-2	Total/NA	Water	1664A	
LCS 490-316617/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 490-316617/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 316633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-69925-1	TS1-I-2016-2	Total/NA	Water	1664A	316617
720-69925-2	TS2-I-2016-2	Total/NA	Water	1664A	316617
720-69925-3	TS3-I-2016-2	Total/NA	Water	1664A	316617
LCS 490-316617/2-A	Lab Control Sample	Total/NA	Water	1664A	316617
MB 490-316617/1-A	Method Blank	Total/NA	Water	1664A	316617

TestAmerica Pleasanton

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Lab Chronicle

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Lab Sample ID: 720-69925-1

Matrix: Water

Client Sample ID: TS1-I-2016-2 Date Collected: 01/22/16 08:12

Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:37	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:51	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196406	01/27/16 22:04	EYT	TAL PLS

Client Sample ID: TS2-I-2016-2 Lab Sample ID: 720-69925-2

Date Collected: 01/22/16 07:54 Matrix: Water

Date Received: 01/22/16 16:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:42	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:57	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196406	01/27/16 22:04	EYT	TAL PLS

Client Sample ID: TS3-I-2016-2 Lab Sample ID: 720-69925-3

Date Collected: 01/22/16 07:55

Date Received: 01/22/16 16:30

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			210227	01/26/16 13:03	DCC	TAL SEA
Total/NA	Analysis	200.8		1	210461	01/27/16 20:46	FCW	TAL SEA
Total/NA	Analysis	1664A		1	316633	02/03/16 10:15	BAD	TAL NSH
Total/NA	Prep	1664A			316617	02/03/16 10:15	BAD	TAL NSH
Total/NA	Analysis	9040B		1	196100	01/22/16 20:59	EYT	TAL PLS
Total/NA	Analysis	SM 2540D		1	196406	01/27/16 22:04	EYT	TAL PLS

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Matrix: Water

Certification Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority California	Program State Prog	gram	EPA Region	Certification ID 2496	Expiration Date 01-31-17
Analysis Method	Prep Method	Matrix	Analy	te	

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	02-29-16 *
Alaska (UST)	State Program	10	UST-087	07-24-16
Arizona	State Program	9	AZ0473	05-05-16
Arkansas DEQ	State Program	6	88-0737	04-25-16
California	State Program	9	2938	10-31-16
Connecticut	State Program	1	PH-0220	12-31-17
Florida	NELAP	4	E87358	06-30-16
Georgia	State Program	4	N/A	06-30-16
Illinois	NELAP	5	200010	12-09-16
Iowa	State Program	7	131	04-01-16 *
Kansas	NELAP	7	E-10229	05-31-16
Kentucky (UST)	State Program	4	19	06-30-16
Kentucky (WW)	State Program	4	90038	12-31-16
Louisiana	NELAP	6	30613	06-30-16
Maine	State Program	1	TN00032	11-03-17
Maryland	State Program	3	316	03-31-16 *
Massachusetts	State Program	1	M-TN032	06-30-16
Minnesota	NELAP	5	047-999-345	12-31-16
Mississippi	State Program	4	N/A	06-30-16
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-16
New Hampshire	NELAP	1	2963	10-09-16
New Jersey	NELAP	2	TN965	06-30-16
New York	NELAP	2	11342	03-31-16
North Carolina (WW/SW)	State Program	4	387	12-31-16
North Dakota	State Program	8	R-146	06-30-16
Ohio VAP	State Program	5	CL0033	07-10-17
Oklahoma	State Program	6	9412	08-31-16
Oregon	NELAP	10	TN200001	04-27-16
Pennsylvania	NELAP	3	68-00585	06-30-16
Rhode Island	State Program	1	LAO00268	12-30-15 *
South Carolina	State Program	4	84009 (001)	02-28-16 *
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-17
Texas	NELAP	6	T104704077	08-31-16
USDA	Federal		S-48469	10-30-16
Utah	NELAP	8	TN00032	07-31-16
Virginia	NELAP	3	460152	06-14-16
Washington	State Program	10	C789	07-19-16
West Virginia DEP	State Program	3	219	02-28-16 *
Wisconsin	State Program	5	998020430	08-31-16

^{*} Certification renewal pending - certification considered valid.

TestAmerica Pleasanton

2/5/2016

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Certification Summary

Client: Weiss Associates TestAmerica Job ID: 720-69925-1

Project/Site: LRTC 2014-2015 Annual Stormwater

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wyoming (UST)	A2LA	8	453.07	02-29-16 *

Laboratory: TestAmerica Seattle

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-18
L-A-B	DoD ELAP		L2236	01-19-19
L-A-B	ISO/IEC 17025		L2236	01-19-19
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-16
US Fish & Wildlife	Federal		LE058448-0	02-28-16
USDA	Federal		P330-14-00126	04-08-17
Washington	State Program	10	C553	02-17-16

^{*} Certification renewal pending - certification considered valid.

Method Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	TAL SEA
1664A	HEM and SGT-HEM	1664A	TAL NSH
9040B	рН	SW846	TAL PLS
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL PLS

Protocol References:

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Sample Summary

Client: Weiss Associates

Project/Site: LRTC 2014-2015 Annual Stormwater

TestAmerica Job ID: 720-69925-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-69925-1	TS1-I-2016-2	Water	01/22/16 08:12	01/22/16 16:30
720-69925-2	TS2-I-2016-2	Water	01/22/16 07:54 (01/22/16 16:30
720-69925-3	TS3-I-2016-2	Water	01/22/16 07:55	01/22/16 16:30

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720-69925

Special Instructions/OC Requirements & Comments: TestAmerica 1220 Quarry Lane Address: Weiss Associates Job Name: LRT 2014-2015 Annual Storm Water Sampling Emeryville, CA 94608 2200 Powell Street, Suite 925 Pleasanton, CA 94566 chaquished by: (510) 547-5043 (510) 450-6000 hone: Lab ID 720-69925 Chain of Custody Chain of Custody Record 925-484-1919 ext.137 Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4 ; 4=HNO₅; 5=NaOH; 6= Other Levin Richmond Terminal, 402 Wright Avenue, Richmond, CA 94804 2-3-2-2016-5 151-I-2016-2 127-12-2016-1 ■ Samples released to a secured, locked area. Client Contact Sample Identification Phone FAXLevel II Report. Report with reporting limit and method detection limit. Analyze and report only the metals listed above (Al, Cn, Fe, Ni, Ph, and Zn). Company. Company Sample date(s): Sampled by: Project ID: Project Manager: mec@weiss.com labresults@weiss.com original chain-of-custody form to: Please send analytic results, electronic deliverables and the sab@weiss.com Sample Date 122/16 بے **Analysis Turnaround Time:** (Specify Days or Hours) 1(22)16 とう 2180 Scott Bourne 5540 4284 426-2026.01 Task 1.1.3 Sample Time Standard Date/Time Field Filtered (X): Sample Matrix 3 # of Cont. 7 Aintyle (Meriod ID) Received by. Received Protocol ID/path: J\Levin Richmond\03b_Sampling INSTRUCTIONS FOR LAB PERSONNEL:

Yes X No Specify analytic/prep method and detection limit in report Call mmediately with any questions or problems. Notify us of any anomalous peaks in GC or other scans. Equis 4-file EDWEDD required? pH (EPA 9040B) = Samples received from a secured, locked area X ٨ Total Suspended Solids (SM 2540D) 1, 2 X K Total Metals- Al,Cu, Fe, Ni, Pb, Zn (EPA 200.8 ICP-MS) 1,4 X _ 1 X Yes O No _ 0 ---Сощрану 186299 Page | Sample Specific Notes: COC Number: q,

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TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Phone (925) 484-1919 Fax (925) 600-3002

Chain of Custody Record

			VOI GIA	are(a) Cara Cura Namana.	Cooler I emberate e						Δ Yes: Δ No
			Vomarke:	3	Cooler Temperati						Custody Seals Intact: Custody Seal No.:
Company		Date/Time:			Received by:		Company			Date/Time:	Relinquished by:
Company		Date/Time:		(Receivedby	\ 	Company			Date/Time:	veninhinav.
Company	16 1000	Date/Time:	700	1	Received by:	\\ \	Typany HOO	16.00	5-16	Date/Time:	Politonished by: Saw Mull
		hipment:	Method of Shipment:			Time:			Date:		Empty Kit Relinquished by:
			ents:	ns/QC Requirements:	Special Instructions/0	Spe					Deliverable Requested: 1, II, III, IV, Other (specify)
Months	Archive For	Arc	Disposal By Lab	Client	Return To Clie						Unconfirmed
1 month)	are retained longer than 1	ples are retai	may be assessed if samples		Sample Disposal (A fee	Sar					Possible Hazard Identification
		21.3				_					
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		L W									
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\									
	The state of the s										
	2	32.			×		Water	0 0	07:55 Pacific	1/22/16	TS3-I-2016-2 (720-69925-3)
	(100)	্রেক :			×		Water	0 +	07:54 Pacific	1/22/16	TS2-I-2016-2 (720-69925-2)
	Å				×		Water	0 10	08:12 Pacific	1/22/16	TS1-I-2016-2 (720-69925-1)
30 COMPONENT TO					manufacture of the control of the co	X	Preservation Code:	_	X	1	Control of the second of the s
Special Instructions/Note:		Total Nu			1664A/166	Field Filt Perform	(W=water, S=solid, IP, O=waste/oil, O) BT=Tissue, A=Air	03	Sample Time	Sample Date	Sample Identification - Client ID (Lab ID)
	mat ć	mhou -			64A_SP	ered S		Sample			
	Other:	****			E SG					ssow#:	Site:
w - pn 4-o Z - other (specify)	L-EDA	néniu S			T-HEM					Project #: 72009078	Project Name: LRTC Stormwater
U - Acetone V - MCAA		rs 🎘			(ТРН)					WO#:	Email:
S - H2SO4 T - TSP Dodecahydrate		*				0)				PO #	Phone: 615-726-0177(Tel) 615-726-3404(Fax)
P - Na2O4S Q - Na2SO3 R - Na2S2SO3	,3	aj 3									TN, 37204
N - None O - AsNaO2	B - NaOH C - Zn Acetate	-						·,	(days):	TAT Requested (days):	Nashville
des: M - Hexane		WAY THE						:	sted:	Due Date Requested: 2/3/2016	ess: 0 Foster Creighton Drive,
	Job #: 720-69925-1		quested	Analysis Requested			=				v. nerica Laboratories, Inc
	Page: Page 1 of 1			linc.com	E-Mail: micah.smith@testamericainc.	E-Mail: micah.smith	mi C1			Phone:	Client Contact Shipping/Receiving
	720-27481.1	o(s):	Carrier Tracking No(s):		à	Smith, Micah	Su			Sampler:	Client Information (Sub Contract Lab)
						2					Phone (925) 484-1919 Fax (925) 600-3002



COOLER RECEIPT FORM

Cooler Received/Opened On 1/26/2016 @ 1000	
Time Samples Removed From Cooler 17:40 Time Samples Placed In Storage 12:5	(2 Hour Window)
1. Tracking # \$275 (last 4 digits, FedEx) Courier: _FedEx_	
IR Gun ID 97310166 pH Strip Lot HC554612 Chlorine Strip Lot 072815A	
2. Temperature of rep. sample or temp blank when opened: Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen?	YES NO NA
4. Were custody seals on outside of cooler?	YES NONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	YES NONA
6. Were custody papers inside cooler?	YESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	62
7. Were custody seals on containers: YES (10) and Intact	YESNO.(NA)
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used?-Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper	Other None
9. Cooling process:	Other None
10. Did all containers arrive in good condition (unbroken)?	YES NONA
11. Were all container labels complete (#, date, signed, pres., etc)?	YES .NONA
12. Did all container labels and tags agree with custody papers?	(ES)NONA
13a. Were VOA vials received?	YES. NO.NA
b. Was there any observable headspace present in any VOA vial?	YESNO.KNA
14. Was there a Trip Blank in this cooler? YESNO If multiple coolers, sequence	ce # <u> </u>
I certify that I unloaded the cooler and answered questions 7-14 (intial)	₩_
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO.NA
b. Did the bottle labels indicate that the correct preservatives were used	YES).NONA
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	
17. Were custody papers properly filled out (ink, signed, etc)?	YESNONA
18. Did you sign the custody papers in the appropriate place?	(ES).NONA
19. Were correct containers used for the analysis requested?	VES NONA
20. Was sufficient amount of sample sent in each container?	YES).NONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	B
I certify that I attached a label with the unique LIMS number to each container (intial)	\bigoplus
21. Were there Non-Conformance issues at login? YES. NO Was a NCM generated? YES.	NO.#

1220 Quarry Lane

TestAmerica Pleasanton

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Chain of Custody Record

Pleasanton, CA 94566	Ç		Chain of Custody Necord	acci a				THE LEADER IN E	THE LEADER IN SUVIRONNENTAL TESTING
hone (925) 484-1919 Fax (925) 600-3002	Sampler		Lab P	Lab PM:		Carrier Tracking No(s):	lo(s):	COC No:	
Client Confact China	Phone:	į	E-Mail:	i, missair				Page:	
Company. Company. TestAmerica Laboratories, Inc.				(Analysis	Requested		Job #. 720-69925-1	
Address: 5755 8th Street East, ,	Due Date Requested: 2/3/2016	#					\$. F	Preservation Codes:	des:
City: Tacoma	TAT Requested (days):	/s):		b, Zn b			0.0	B - NaOH C - Zn Acetate	N - None O - AsNaO2
State, Zip: WA, 98424							·	D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2SO3 B - Na2SO3
Phone: 253-922-2310(Tel) 253-922-5047(Fax)	PO#.							G - Amchior H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email:	WO#			Vδ) 🖔			řs, *.		U - Acetone V - MCAA
Project Name: LRTC Stormwater	Project#: 72009078			as of			italne	L-EDA	Z - other (specify)
Site:	SSOW#:			SD (Y			of cor	Other:	
ample Identification - Client ID (1 ah ID)	Sample Date	Ψ	Sample Matrix Type (W-water, S-solid, (C=comp, O-matefielt, G=rrah) or-Trees A-i-i-	field Filtered : Perform MS/M 200.8_CWA/200. 200.8			្រីវូឌី Number	Special I	Special Instructions/Note:
	V		ation Code:	X			X		A CANADA
TS1-I-2016-2 (720-69925-1)	1/22/16	08:12 Pacific	Water	×					
TS2-I-2016-2 (720-69925-2)	1/22/16	07:54 Pacific	Water	×			1		
TS3-I-2016-2 (720-69925-3)	1/22/16	07:55 Pacific	Water	×			1		
			,						
			,			-	蒙蒙		
							# CS.		
							,		
		_							
							êr, j.		
Possible Hazard Identification				Sample Disposal	(A fee	may be assessed if samples	are re	than	1 month)
Deliverable Requested: I. II, III, IV, Other (specify)				Special Instruction		- 1			
Empty Kit Relinquished by:		Date:		Time:) 	Method of Shipment	ipment:		
Relinquished by	Date/Times:	3/12	Company	Received by:	Young		hate/Time: (1/26/16	0930	Company & C
Relinquished by:	Date/Time/	(Company	Received by:	(Date/Time: /		Company
Relinquished by:	Date/Time:		Company	Received by:			Date/Time:		Company
Custody Seals Intact: Custody Seal No.:			-	Cooler Temper	rature(s) °C and Other	Remarks:			

Client: Weiss Associates Job Number: 720-69925-1

Login Number: 69925 List Source: TestAmerica Pleasanton

List Number: 1

Creator: Arauz, Dennis

Creator: Arauz, Dennis		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-69925-1

List Source: TestAmerica Nashville
List Number: 2
List Creation: 01/26/16 12:50 PM

Creator: Ford, Easton

Creator: Ford, Easton		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Weiss Associates Job Number: 720-69925-1

List Source: TestAmerica Seattle
List Number: 3
List Creation: 01/26/16 12:48 PM

Creator: Vance, Diane R

oreator. Varice, Diane IX		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



APPENDIX C

Upland Capping System Inspection Form

Former United Heckathorn Superfund Site Upland Capping System Inspection Form Levin Richmond Terminal, 402 Wright Avenue, Richmond, California I. General Information Mary Cunningham, PE and Scott Bourne, PE Site: Former United Heckathorn Superfund Site, Inspector: Levin Richmond Terminal Organization: CDIM Engineering, Inc. Date and time of inspection: Address: 402 Wright Avenue, Richmond, CA 5/31/16, 10 AM II. Upland Area Concrete Cap, Gravel Cover, and Drainage System Observations Note significant cracks, holes, penetrations, damage, settlement, or any exposure of underlying soil in any component of the capping system. North Main Terminal (SW-3) Yes No N/A Comments Are concrete cap surfaces in adequate condition to promote effectiveness of the cap? Are gravel cover surfaces in adequate condition to promote effectiveness of the cap? Is storm water drainage infrastructure (interceptors, drain inlets) in adequate condition to prevent exposure of underlying soil to runoff? Is accumulated sediment observed in the interceptors or drain inlets? Interceptors not opened during this If yes, note location and photograph. inspection. Drain inlets have inlet protection. Х Are corrective actions required? Attach a photograph of areas requiring corrective action. Describe any recent repairs/maintenance: Concrete was added along dock to widen road and provide increased storm water capture. The concrete extends from bents 1-10 and bents 11-20. Describe conditions and locations of the capping system which require attention: Sinking/degraded pavement was observed in a small area to the south of the cap. While this is outside of the Heckathorn cap, LRTC plans to remove the affected section and repour 12 inches of concrete. Describe corrective actions required and their date(s) of implementation: NA

Signature:

Date: 5/31/16 1 of 5

Former United Heckathorn Superfund Site Upland Capping System Inspection Form Levin Richmond Terminal, 402 Wright Avenue, Richmond, California North Main Terminal/United Heckathorn (SW-4) Yes No N/A Comments Are concrete cap surfaces in adequate condition to promote effectiveness of the cap? Are gravel cover surfaces in adequate condition to promote effectiveness of the cap? x Is storm water drainage infrastructure (interceptors, drain inlets) in adequate condition to prevent exposure of underlying soil to runoff? Is accumulated sediment observed in the interceptors or drain inlets? Interceptors not opened during this If yes, note location and photograph. inspection. Drain inlets have inlet protection. Х Are corrective actions required? Attach a photograph of areas requiring corrective action. Describe any recent repairs/maintenance: See SW-3 area for discussion of concrete addition along dock. The concrete work in SW-4 area is ongoing. Describe conditions and locations of the capping system which require attention: There is a long seam and surficial cracking in the roadway north of the stockpile storage area. This should continue to be monitored. Describe corrective actions required and their date(s) of implementation: NA

Signature:

Date: 5/31/16 2 of 5

Former United Heckathorn Superfund Site Upland Capping System Inspection Form Levin Richmond Terminal, 402 Wright Avenue, Richmond, California North Main Terminal/United Heckathorn (SW-5) Yes No N/A Comments Are concrete cap surfaces in adequate condition to promote effectiveness of the cap? Are gravel cover surfaces in adequate condition to promote effectiveness of the cap? x Is storm water drainage infrastructure (interceptors, drain inlets) in adequate condition to prevent exposure of underlying soil to runoff? Is accumulated sediment observed in the interceptors or drain inlets? Interceptors not opened during this If yes, note location and photograph. inspection. Drain inlets have inlet protection. Х Are corrective actions required? Attach a photograph of areas requiring corrective action. Describe any recent repairs/maintenance: A new roadway is being installed in SW-5/SW-6 areas. The road crosses rail tracks and will increased the paved portion of the site. Describe conditions and locations of the capping system which require attention: Gravel cover to continue being monitored; gravel should be added on an as-needed basis. Describe corrective actions required and their date(s) of implementation: NA

Signature:

Date: 5/31/16 3 of 5

Former United Heckathorn Superfund Site Upland Capping System Inspection Form Levin Richmond Terminal, 402 Wright Avenue, Richmond, California North Main Terminal/United Heckathorn (SW-6) Yes No N/A Comments Are concrete cap surfaces in adequate condition to promote effectiveness of the cap? Are gravel cover surfaces in adequate condition to promote effectiveness of the cap? x Is storm water drainage infrastructure (interceptors, drain inlets) in adequate condition to prevent exposure of underlying soil to runoff? | | x | | Is accumulated sediment observed in the interceptors or drain inlets? Interceptors not opened during this If yes, note location and photograph. inspection. Drain inlets have inlet protection. х Are corrective actions required? Attach a photograph of areas requiring corrective action. Describe any recent repairs/maintenance: NA Describe conditions and locations of the capping system which require attention: Gravel cover to continue being monitored; gravel should be added on an as-needed basis. Pavement adjacent to the gate in SW-7 should continue to be monitored for further degradation. Describe corrective actions required and their date(s) of implementation: NA

Signature:

Date: 5/31/16 4 of 5

Former United Heckathorn Superfund Site Upland Capping System Inspection Form Levin Richmond Terminal, 402 Wright Avenue, Richmond, California North Main Terminal/United Heckathorn (SW-7) Yes No N/A Comments Are concrete cap surfaces in adequate condition to promote effectiveness of the cap? Are gravel cover surfaces in adequate condition to promote effectiveness of the cap? х Is storm water drainage infrastructure (interceptors, drain inlets) in adequate condition to prevent exposure of underlying soil to runoff? х Is accumulated sediment observed in the interceptors or drain inlets? Interceptors not opened during this If yes, note location and photograph. inspection. Drain inlets have inlet protection. х Are corrective actions required? Attach a photograph of areas requiring corrective action. Describe any recent repairs/maintenance: NA Describe conditions and locations of the capping system which require attention: NA Describe corrective actions required and their date(s) of implementation: NA

Signature:

Date: 5/31/16 5 of 5